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DEMOGRAPHIC, SOCIAL AND ENVIRONMENT STATISTICS: ENVIRONMENT STATISTICS

Methods of environment statistics developed under the work programme of the Conference of European Statisticians

Report of the Secretary-General

SUMMARY

A brief history of the work of the Conference by European Statisticians in the field of environment statistics is presented in paragraphs 4-10. The development of standard concepts, definitions and classifications is described in paragraphs 11-45, with a general introduction in this area presented in paragraphs 11-13. The ECE Standard Statistical Classification of Land Use is described in paragraphs 14-19, the ECE Standard Statistical Classification of Water Use in paragraphs 20-24 and the ECE Standard Statistical Classification of Ambient Air Quality in paragraphs 25-45. The methodological discussions within the framework of the Conference of European Statisticians are presented in paragraphs 46 and 47. Perspectives for the future work of the Conference and international co-operation are outlined in paragraphs 48-53. Points for discussion are presented in paragraph 54. Summaries of the categories used in the classifications described earlier are contained in the annexes.

* E/CN.3/1991/1 and Corr.1.

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INTRODUCTION

1. The Statistical Commission, at its twenty-fifth session (6-15 February 1989), stressed that close co-operation between the Economic Commission for Europe (ECE) and the Statistical Office of the United Nations Secretariat should be maintained, including the methodological development of environment statistics. The Commission also considered that some outputs of the work on methods of environment statistics of the Conference of European Statisticians (CES) might contribute to work at the global level. 1/ The Commission requested that a report on methods of environment statistics, developed under the work programme of CES, be submitted to the Commission at its twenty-sixth session. 2/

2. The Working Group on International Statistical Programmes and Co-ordination, at its thirteenth session (11-13 September 1989), requested ECE to provide descriptions of the various relevant classifications and other aspects of methodology that had been adopted by CES. It also requested ECE to include information on experiences to date on the use of those classifications and other aspects of methodology, with a view to assisting the Commission in identifying one or more classifications or other methodological outputs of CES that may be particularly appropriate for international adaptation and use.

3. The present report is largely based on material submitted by ECE, but draws also on the discussion of international methodological work at the first meeting of the Intergovernmental Working Group on the Advancement of Environment Statistics (Oslo, 2-4 May 1990). Following the request of the Working Group on International Statistical Programmes and Co-ordination that the report give special attention to methodological work, including the development of concepts, definitions and classifications, and that the report include as much information about the relevant classifications as possible, the development of an international environmental data service is not described in the present report in order to comply with space limitations. However, international co-operation in the co-ordination and development of environmental data bases is discussed in the report of the Secretary-General on progress made in the development of environmental statistics and future plans (E/CN.3/1991/23).

I. BRIEF HISTORY OF THE WORK OF THE CONFERENCE OF EUROPEAN STATISTICIANS IN THE FIELD OF ENVIRONMENT STATISTICS

4. As early as 15 February 1971, CES sought the views of member countries on what should be done by the Conference in the field of environment statistics. A series of meetings and seminars were held to determine the best way of proceeding in this new field. A Meeting on Environmental Statistics, which the Conference convened together with the Senior Advisers to ECE Governments on Environmental Problems at Geneva from 9 to 13 January 1978, proposed a work programme consisting of three major sub-areas: (a) frameworks; (b) concepts, definitions and classifications in particular areas; and (c) methodological discussions. The general direction of the work done in each of the three sub-areas defined by the January 1978 meeting is discussed in the following paragraphs.

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5. First, regarding frameworks, there were two projects that received particular attention during the early phase of work under this sub-area, the Stress-Response Environmental Statistical System (STRESS) (developed in Canada) and natural resources accounting (applied in France and Norway). STRESS was used by the secretariat in relation to environmental compendia of four countries. In addition, a detailed report on a Canadian pilot study dealing with the Laurentian Lower Great Lakes was also discussed. With regard to resource accounting, a comparative analysis of the Norwegian System of Resource Accounts and the French Natural Patrimony Accounts was undertaken by the secretariat. In related work, both the possible and the existing links were discussed between environment statistics and the other two main domains in national statistical systems, that is, economic statistics and social and demographic statistics.

6. A meeting held in October 1982 recommended shifting work towards the establishment of a system or set of environmental indicators. At a further meeting on the subject, an agreement was reached on the approach to be followed in the development of a draft set of ECE environmental indicators. Work involved the definition of a novel concept of environment indicators, an inventory of indicators that had been proposed at the international level and their evaluation in terms of the underlying indicator concept. The result was a first draft of the Set of ECE Environmental Indicators.

7. Secondly, regarding concepts, definitions and classifications, several informal and formal meetings were held, leading to the following classifications or structures:

(a) ECE Standard Statistical Classification of Land Use: a final revision of the classification took place in 1989, before it was adopted by the Conference at its plenary session in 1989 (CES/637);

(b) ECE Standard Statistical Classification of Water Use: a revision of the water use classification took place in 1989, and the final classification was adopted by the Conference in June 1989 (CES/636);

(c) Draft ECE Standard Statistical Classification of Ecological Freshwater Quality: a draft classification of ambient freshwater quality was developed and will be tested in 1990 (CES/668);

(d) ECE Standard Statistical Classification of Ambient Air Quality: the first draft was finalized in 1989 and was adopted by the Conference at its 1990 plenary session (CES/667);

(e) Draft ECE Standard International Framework for the Development of Fauna, Flora and Habitat Statistics: the first draft is yet to be submitted to the Conference for approval (CES/548/Add.4/Rev.1);

(f) Draft ECE Standard Statistical Classification of Wastes: the draft classification was revised in 1989, and its results will be tested during 1990 (CES/638);

(g) Draft ECE Standard Structures of Statistics on Economic Aspects of Environmental Protection: a draft classification of environmental protection facilities was agreed upon in 1989 and will be tested in the course of 1990 (CES/669).

8. Thirdly, regarding methodological discussions, work was driven by two circumstances. On the one hand, the collection and compilation of large parts of environment statistics make use of methods that are essentially different from traditional methods applied in statistical offices. On the other hand, the human resources assigned to environment statistics in national offices were very small initially. As a result, a host of new problems met with extremely scarce resources, so that the professional exchange of methodological experiences was gladly accepted and even sought at an international level.

9. These exchanges were initially organized in two ways. Whenever a meeting on environment statistics was convened by the Conference, methodological questions related to the subject-matter under discussion were tabled. Secondly, the second Warsaw Seminar (September 1980) was also devoted to such discussions. These two ways of organization soon proved to be insufficient in view of a quickly rising demand for methodological exchanges. Methodological discussion only at meetings on specific subject-matters did not permit an exchange of views on subject-matters on which no meetings were held at a convenient time nor on general methodological concerns. Seminars, being a relatively expensive undertaking, could not cope with the considerable amount of both requests for methodological discussions and offers to contribute substantive discussion papers.

10. Consequently, a meeting on organizational aspects of the related international co-operation became necessary and was held in November 1981. It recommended the holding of annual meetings convened in one language. The meeting also structured the sub-area from a substantive point of view. After approval of the related recommendations by the Conference in June 1982, the first informal meeting of the series was held at Helsinki in May 1983. Also, the following meetings have been invited to ECE member countries: by France (1984); by the Federal Republic of Germany (1985); by Norway (1986); by Poland (1987); by the Netherlands (1988); by Hungary (1989); and by Sweden (1990). The next meetings are scheduled in Ottawa (1991); Lisbon (1992); and Prague (1993).

II. DEVELOPMENT OF ECE STANDARD CONCEPTS, DEFINITIONS AND CLASSIFICATIONS

11. Among the ECE classifications listed above, three have been adopted by CES, namely, land use, water use and ambient air quality. A description of these classifications is provided in paragraphs 14 to 45 below. In addition, summaries of the categories used in these classifications are reproduced in the annexes to the present report. For the detailed definitions of terms and, in the case of ambient air quality, an evaluation of analytical methods used in measuring concentrations of air pollutants, the complete CES document for each classification would have to be consulted.

12. No synthesis of national experiences with these ECE classifications has yet been prepared. Accordingly, ECE member countries participating in the twenty-sixth session of the Statistical Commission are invited to point out any such experiences that would assist the Commission in assessing the work of ECE for the identification of those classifications and methodologies that may be adapted and used at the international level (see sect. V, Points for discussion, below).

13. The ECE classifications were among the subjects referred to at the Intergovernmental Working Group on the Advancement of Environment Statistics convened by the Statistical Office of the United Nations Secretariat in May 1990 (for more information about this Working Group, see ESA/STAT/AC.37). As part of its discussion on the methodological development of environment statistics, the Working Group concluded that the existing ECE classifications were a good starting-point. However, it considered that particular limitations, such as inadequate linkages to economic statistics in the classifications, should be noted. The Working Group felt that beyond the definition of classifications, methodological development should also include details on the means of measurement and statistical techniques. With regard to applying the methodologies created in developed countries to the situation in developing countries, it was concluded that only by combining efforts between these countries could the difficulties be highlighted, and adaptations to national priorities and conditions made. The Working Group also decided that its initial work would focus on environment-related agricultural statistics, statistics of water use and water quality, and statistics of air pollution and energy use.

A. ECE Standard Statistical Classification of Land Use

(CES/637; see annex I for categories of the classification)

14. Land information is needed at three different levels. At the local level, it is required for the purposes of physical planning and land management. At the national level, the emphasis lies on needs for overall resource policy and management, including the planning of the future use of land, and on information requirements of environmental protection activities. At the international level, land information is used for comparative descriptions and analyses of national land use patterns.

15. The classification provides for a structure into which available national information can be cast in order to arrive at internationally comparable data. In addition, account is taken of the special national characteristics and purposes within which nationally available information is generated, as well as of possible other roles a land use classification is likely to play.

16. Four broad substantive concerns require land information, each creating specific needs. The first is the concern with the description of existing land use patterns. It calls for land information in terms of land cover. The second area comprises questions linked to demand for land from human activities in a broad sense. Such concerns stipulate the existence of information on the use of land, and its changes over time, in terms of a breakdown by type of human activity. The

third area of concern relates to environmental repercussions of land use. While information on land cover can be used as a starting-point in this context, the assessment of environmental impact, for example, necessitates the incorporation of ecological aspects into the classification. The fourth area focuses on the planning of the future development of land use patterns. This implies the need for information on potential or alternative uses of land, which can partly be met through capability assessments.

17. The four areas of concern are not mutually exclusive; their information needs overlap to some extent. Aspects of land cover, while being the easiest to collect statistical information on, are often interwoven to a considerable degree with activity aspects. The ECE Standard Statistical Classification of Land Use is a mixed classification of land cover and activity categories. The classification is dominated by physical characteristics at the one-digit level. In selecting this approach, emphasis was put on practical aspects of actual production of land use statistics.

18. The classification focuses on inventory data of land use. Statistical information on land use changes may be of equal or even greater interest to users of land information. The conceptual development of internationally comparable statistics on land use changes is undertaken by the Conference of European Statisticians in the framework of the development of a set of ECE Environmental Indicators. Statistics of land use changes could be derived from adequate inventory data, but could also be available from other sources.

19. This classification does not provide for information that would be directly relevant for the consideration of the degree of reversibility of land use changes. Likewise, it does not provide support to investigations into the intensity of "sealing" of land, which is of particular interest in relation to environmental aspects of human settlements. The exploration of possibilities to develop statistics in these two regards is among the issues left to future work on land information.

B. ECE Standard Statistical Classification of Water Use

(CES/636; see annex II for categories of the classification)

20. Water management aims at an optimal water economy within the recognized ecological functions of water. Among the bases for water management are quantitative data about aspects of the water cycle. Such aspects relate to both water quantities and water quality. The present classification covers water use only and provides a framework for the systematic compilation and presentation of data on offstream water uses. It is part of the ECE standard statistical classifications that were being developed by the Conference of European Statisticians for the purposes of environment statistics. Thus, the classification only covers a fraction of the statistical information needs of water authorities. Another part dealing with the assessment of water quality is the subject of the ECE Standard Statistical Classification of Ecological Freshwater Quality.

21. The water use classification serves three main purposes. First, it is intended to provide assistance to national statistical offices that embark on the development of a national system of water use statistics. Secondly, it provides concepts and definitions for use in international statistical surveys of water use. Thirdly, it contributes to the standardization of terms used in water use statistics at the international level.

22. It is recognized that these purposes cover but a small fraction of the data requirements for water resource studies or water demand management. A comprehensive data system that would satisfy such information needs would have to be complemented with economic parameters including information on end-uses and on costs. Any full-fledged development of such a comprehensive system should therefore ensure that the water use data could be linked as necessary to the economic variables of interest. The inclusion of appropriate linkages to the system of national accounts and balances in place can replace the need for including economic variables into the system of water use statistics.

23. In any national development of a water use statistical system, due attention should also be paid to the seasonal time pattern of water use. Adequate provisions should be made for access to timely data by all national, regional and local water management authorities. It should be noted that the classification is descriptive in nature, as opposed to normative. In particular, no harmonization of environmental protection standards is attempted.

24. International surveys of water use should relate to annual data for countries as a whole or for the most important regional river basins. It is recommended to use the following criteria in selecting such river basins: (a) the area of the river basin is at least 30,000 km^2; or (b) at least three countries share in the area. Detailed arrangements in this regard should be made by the participants in such surveys and should be spelled out in the related publications. Respondents to questionnaires used in international surveys should submit, together with the data they supply, information on the methods used in the measurement and compilation of such data, because an adequate interpretation of water use data can often only be made if sufficient methodological information is available. The data requirements implied by the classification may lead in individual countries to estimation. This is particularly true for the variables included in section 1 of the classification. In such cases, it is recommended that respondents make information available on the estimation method that was used.

C. ECE Standard Statistical Classification of Ambient Air Quality

(CES/667; see annex III for categories of the classification)

25. The quality of ambient air influences the state of environmental media, has effects on human health and the well-being of humans, animals and plant species, and affects built-up structures. Furthermore, measures to counterbalance the negative effects of a deteriorating quality of ambient air call for substantial economic efforts, so that the consequences of ambient air quality changes pertain to all major fields of social life.

26. Air quality is decisively influenced by the presence or absence of specific chemical elements or compounds as well as by the occurrence of certain physical phenomena. These characteristics originate from both natural sources and human activities. Polluting substances, after their emission to ambient air, diffuse and become diluted as a result of geographical and meteorological conditions. After certain chemical transformations, they can remain in the air for a short or a long time period and can eventually be deposited.

27. The purpose of comprehensive air quality statistics is to provide generalized statements about air pollution and the quality of ambient air. Such statements are needed in determining and quantifying factors that are decisive for both harmful effects of air pollution and possibilities for pollution abatement measures.

28. Air pollution can be seen in four phases: emission of pollutants, their concentration in ambient air, their deposition, and the exposure of humans, animals and plants, as well as buildings. However, exposure statistics are at present only rarely available. Instead, exposure is frequently assessed on the basis of concentration data. Thus, for the time being, exposure is not covered as such by this classification.

29. The inclusion of the remaining three phases specified above can also be justified in terms of environmental problems related to air pollution. The contribution of emissions, concentrations, and depositions to acidification, corrosion, eutrophication, climate changes, health risks, accumulation of persistent substances and photochemical oxydants, forest damage, the economic aspects of these consequences, as well as of any remedial action, to name the most prominent of environmental problems attributed to air pollution, can be studied with the help of relevant statistical information. The purposes of such studies determine which pollutants to include and which statistical variables to use.

30. Air pollution can be caused by natural as well as anthropogenic sources. Generally, however, the emission of pollutants, that is, primarily chemical elements and compounds, from socio-economic processes receives the most interest. The statistical description of such emissions covers their sources and the quantities emitted. The selected data are used for regulatory purposes as well as for the development of pollution abatement strategies. In addition, emission statistics can be and are widely used in the estimation and modelling of air pollution, for example in environmental, economic and dispersion models. Deposition statistics, together with available information on critical loads of areas or ecosystems concerned, are increasingly requested for research and management purposes.

31. Concentration data are primarily used for the monitoring of environmental problems of air quality at various scales. At the global level, large-scale changes in atmospheric constituents influencing weather and climate are of special interest. The overall impact of human activities on air quality can be studied in broad terms at the regional level. For the local level, ambient air quality standards are usually cast in terms of concentrations.

32. Environment statistics in general, and air quality statistics in particular, are to a considerable extent intended for the general public. It also appears that environment statistics are being increasingly used by decision makers other than environmental managers. Their data requirements seem to resemble more those of the general public than those of environmental managers. The data needs of the general public differ from those of environmental managers in that statistical generalizations play a larger role than time and site-specific monitoring data. This circumstance influences both the concepts chosen for this classification and the ways in which air quality statistics should be presented. At the conceptual level, variables that are representative of widely encountered environmental problems should be selected for the purposes of an international standard classification. In presentation, the focus should be on techniques that facilitate the recognition of the patterns dominating the development of air quality over time and that avoid at the same time easy misinterpretation of the statistical data.

33. This classification provides for conceptual and classificatory guidance regarding the development of ambient air quality statistics. It intends to support national as well as international efforts. It is in principle limited to those pollutants for which international standard recommendations regarding the measurement and analysis of ambient air samples are currently available. In a few instances, pollutants are also included that are widely measured, but for which corresponding international standard recommendations have not yet been developed. The classification attempts to reflect current data capabilities in order to promote its wide use in international collection, compilation and presentation of air quality statistics.

34. The part of the classification dealing with chemicals should be looked upon as a reference framework for the long-term development of air quality statistics. The framework is primarily derived from the availability of internationally standardized measurement techniques and analytical methods or at least that of widely applied routines. It indicates the purpose for which data should be collected: for emission statistics, for local, for national/regional background and/or for global air pollution statistics. Not all of the compounds listed are proposed for the preparation of statistics in the short run. Those proposed for present data collection are repeated in subsequent sections of the classification.

35. The section on emissions exclusively relates to anthropogenic emissions of air polluting substances. Emissions from stationary combustion sources, from industrial non-combustion sources (including evaporation), from non-industrial and domestic sources (including residential heating) and from mobile sources are distinguished. Emissions from the combustion of fuels and from other processes can differ in their composition, volume and seasonal pattern. At a second level, it is also proposed to provide data for a selected number of economic activities and for type of fuel.

36. Air pollution emissions can be measured directly, or can be estimated on the basis of fuel and other material consumption data and process-specific emission factors. While some countries prefer measurement to estimation, data are more frequently available from estimations. Estimation procedures are at hand for a number of pollutants, as is relatively sound information on the reliability of

estimates. The classification does not aim at standardizing estimation procedures. Emission data (either measured or estimated) should be reported and presented together with information on the measurement and/or estimation method used.

37. For international data reporting, the use of annual national totals is recommended. For national purposes, regional and even site-specific emission data may have to be used together with information on seasonal variations.

38. Concentration of pollutants in ambient air can be measured at different distances from their sources of emission. As a rule, a maximum of concentrations, which is caused by the source (or sources), is found in their proximity. The influence of the source on concentration levels decreases generally with growing distance from the source, except for pollutants depending on the existence of synergistic effects. Accordingly, a distinction is made in the classification between "impact" and "background" concentrations. In addition, "regional background" concentrations are separated from "global background" concentrations. The different types of concentrations are measured at like-named stations.

39. Statistics based on measurements carried out at impact stations describe local air quality. These measurements are influenced by the type of air polluting activities carried out in the neighbourhood of the measurement station, together with meteorological and physical factors. Attempts are sometimes made to classify different impact stations by the type of area in which they are located. For example, the Global Environmental Monitoring System (GEMS) uses a sixfold classification of urban areas for the purpose of urban air pollution statistics. If the GEMS classification is used for urban air quality statistics, data presentation should include information on the location of the measurement station. When impact stations exist outside the direct influence of local sources, it should be studied whether these stations could be used as background stations for those stations measuring the direct impact of local air pollution sources.

40. The aim of deposition statistics is to cover total deposition, that is, both wet and dry deposition. Deposition statistics, as recommended in this classification, however, cover wet depositions of acids and acidifying compounds. Statistics on wet acidifying deposition are based on the chemical analysis of precipitation at background stations. The volume of wet acidifying deposition is calculated as the product of the concentration of the given component in precipitation and the volume of precipitation. For the purposes of international data reporting, annual national totals should be reported.

41. The input of dry deposition into soil, vegetation, surface waters and materials is also of environmental significance. However, dry deposition is not included in the classification because of the current absence of systematic measurement data and of uncertainties in determining deposition velocities. For some compounds, the relationship between pollutant concentration in air and in the aqueous phase is relatively well-known. For most compounds, however, this relationship is at present unknown.

42. Information on depositions can also be obtained indirectly, that is, by measuring the accumulation of deposited substances in plants. No recommendations

for such measurements are for the time being included in this classification. However, as indirect measurements of deposition are becoming more common, the classification is sufficiently flexible in order to allow for the inclusion of related recommendations as soon as is regarded appropriate.

43. Many air quality statistics are usually based on monitoring. This implies that statistical generalization of data is impeded by the site-specificity of monitoring data, the characteristics of measurement sites, sample design and specification, calibration, and the sampling and analytical methods used. The repercussions of these aspects on data reliability and comparability are only known to some extent. Future work should bring about clarifications in this respect. Of special interest appear to be studies into the relationship between site characteristics and levels of measured data. The detailed specification of information needed on site characteristics should be deferred until after knowledge of the relationship has improved. Furthermore, future methodological studies should shed further light on possibilities for valid generalizations of monitoring data into air quality statistics.

44. An annex of the classification provides a review of analytical methods commonly used in air quality measurements. The aim of the review is not to standardize measurement and analytical practices but to serve as a reference framework for the air quality classification and for the purpose of international data collection. Existing variations in measurement and analytical methods between station practices should give rise to the use of adequate techniques of data presentation. Such techniques include references to measurement techniques and analytical methods used, to site characteristics of the relevant stations, to meteorological conditions etc. The use of more than one statistical measure to describe statistical distributions of variables as well as the use of maps, isopleths and other graphic techniques are also ways of reducing the impression of "spurious accuracy" of air quality statistics. Furthermore, the conditions that have to be met in terms of, for example, e.g. data completeness before reliable trends can be calculated should be explored. Also, methods used in the correction or adjustment of time series for different types of background conditions should be compared and evaluated.

45. Further development of air pollution statistics should include the development of physical measures of pollution abatement facilities. The related work could perhaps best be undertaken in connection with the ongoing conceptual work by the Conference of European Statisticians on economic aspects of environmental protection. Finally, a systematic conceptual and methodological exploration of the scope and limits of exposure statistics is required. Such statistics could be obtained from direct measurement, but could also be derived from the application of appropriate estimation procedures to concentration and emission data.

III. METHODOLOGICAL DISCUSSIONS WITHIN THE FRAMEWORK OF THE CONFERENCE OF EUROPEAN STATISTICIANS

46. The discussion of methodological problems between national experts in a sort of "purpose-free" ambiance has turned out to be instrumental to progress also in

regard to conceptual work. Thus, methodological discussions were in the past always held at subject-matter meetings. On occasion, seminars were organized, which dealt with more comprehensive issues. A seminar held at Warsaw in 1974, however, was devoted more to a consideration of how to organize the development of international environment statistics.

47. A second Warsaw seminar, in 1980, dealt with a wide range of methodological issues. A further seminar organized by the Conference on the question of ecological statistics, was held in Rome in April 1988. Since that time, the strategy is to devote seminars to the interdisciplinary discussion of issues that also have a strong component of environment statistics. Since 1983, the most frequently used vehicle for methodological work is the annual work sessions dealing with these problems. The most recent Work Session on Specific Methodological Issues in Environment Statistics was held at Stockholm from 5 to 8 June 1990 and dealt with statistics on marine environment, water use and quality and related statistics, and fauna and flora and related statistics.

IV. PERSPECTIVES FOR FUTURE WORK OF THE CONFERENCE

48. The perspectives for future work have to be derived from several circumstances. There is first of all the changing context of international co-operation in Europe in general, and of statistical multilateral international co-operation in particular. The Conference has started to determine its future role in relation to the universal changes, and environment statistics were retained in the short list of three work areas being given top priority.

49. The second relevant aspect is the ongoing concern about concentrating on work methods that are particularly cost-efficient, for both the United Nations Secretariat and Member countries. This trend seems to favour work that is not excessively dependent on the holding of international meetings, that is, more data work.

50. Finally, the past record of the work is to be taken into account in such a way that the particularly successful types of projects will be strengthened. This aspect probably implies that the conceptual work on statistical nomenclatures will be extended to further areas.

51. Taking these circumstances together, it can be expected that the development of an international data service will become more important in future work. Secondly, standard concepts and, where necessary, classifications will be finalized where drafts exist and will be developed in new areas. The new areas already included in the work programme, but not yet tackled, are marine water quality, chemicals from an environmental point of view, noise and radioactivity. It can be expected that a more systematic coverage of the interface between the economy and the environment will also be attempted in the not too distant future. Finally, the entire area of socio-environmental interrelations is as yet untouched. In this field, perhaps, statistics on environmental health will become a starting-point for conceptual work.

52. The methodological discussions will in all likelihood be maintained as currently organized, as they seem to have reached an optimal scheme. Thus, on the whole, there are few possibilities for savings in the programme, but increasing demands in important fields. The ECE secretariat has recently anticipated these developments by mobilizing additional resources within the rather tight limits of current conditions.

53. There is a need to assess the experience gained in national and international applications of ECE classifications and methodologies. Such assessment would facilitate deciding which classifications could be recommended directly for world-wide use and which others need further modification and development. The Intergovernmental Working Group on the Advancement of Environment Statistics could play an important role in assisting the Statistical Office of the United Nations Secretariat in such methodological development. Priorities would have to be set for such work in the short-term and long-term work programmes of the Statistical Commission and the CES.

V. POINTS FOR DISCUSSION

54. The Statistical Commission may wish:

(a) To indicate its experience with the application of the ECE classifications in the areas of land use, water use and ambient air quality, as adopted by CES;

(b) To discuss the relevance of these classifications for countries at different stages of development, with a view to determining if any of these classifications might qualify for immediate world-wide recommendation and application;

(c) To provide guidance on the priorities of future work on those classifications and methodologies that require further modification for international use, including those that have not yet been adopted by CES (see para. 7 above);

(d) To provide guidance on the modalities (including support from extrabudgetary sources) for the incorporation of ECE classifications and methodologies in the proposed work programme of the Statistical Office (see report of the Secretary-General on progress made in the development of environmental statistics and future plans (E/CN.3/1991/23)).

Notes

1/ Official Records of the Economic and Social Council, 1989, Supplement No. 3 (E/1989/21), para. 148.

2/ Ibid., para. 153 (h).

Annex I

CATEGORIES OF THE ECE STANDARD STATISTICAL CLASSIFICATION OF LAND USE

1. Agricultural land

   1.1 Arable land

   1.2 Land under permanent crops

   1.3 Land under permanent meadows and pastures

   1.4 Other agricultural land, n.e.s.

   1.5 Total agricultural land
   of which: Fallow agricultural land

2. Forest and other wooded land

   2.1 Total land under forest and other wooded land
   of which: Stands of exotic species
   Particularly fire-prone stands

      2.1.1 With wood production the recognized major function

      2.1.2 With protection, conservation and biological use the recognized major functions

      2.1.3 With recreation the recognized major function

   2.2 Land under coniferous forest

      2.2.1 (same as 2.1.1)

      2.2.2 (same as 2.1.2)

      2.2.3 (same as 2.1.3)

   2.3 Land under non-coniferous forest

      2.3.1 (same as 2.1.1)

      2.3.2 (same as 2.1.2)

      2.3.3 (same as 2.1.3)

2.4 Land under mixed forest

2.4.1 (same as 2.1.1)

2.4.2 (same as 2.1.2)

2.4.3 (same as 2.1.3)

2.5 Other wooded land

2.5.1 (same as 2.1.1)

2.5.2 (same as 2.1.2)

2.5.3 (same as 2.1.3)

3. Built-up and related land (excluding scattered farm buildings)

3.1 Residential Land

3.1.1 With mainly one- or two-storey buildings

3.1.2 With mainly three- and more storey buildings

3.2 Industrial land (excluding land classified under 3.3 below)

3.3 Land used for quarries, pits, mines and related facilities

3.3.1 For peat cutting

3.3.2 For other open-cast mining and quarrying

3.3.3 Other, n.e.s.

3.4 Commercial land

3.5 Land used for public services (excluding transport, communication and technical infrastructure)

3.6 Land of mixed use

3.7 Land used for transport and communication

3.7.1 Land under roads

3.7.2 Land under railways

3.7.3 Land under airports and related facilities

3.7.4 Other land used for transport and communication, n.e.s.

3.8 Land used for technical infrastructure

3.8.1 Land used for the disposal of wastes

3.8.2 Land used for water supply and waste-water treatment

3.8.3 Land used for electricity generation and distribution

3.8.4 Other land used for technical infrastructure, n.e.s.

3.9 Recreational and other open land

3.9.1 Parks, green areas, hobby gardens, cemeteries, etc.

3.9.2 Recreational land mainly occupied by camping sites, secondary residences or vacation houses

3.9.3 Land under current construction

3.9.4 Land intended for future construction

3.9.5 Other, n.e.s.

4. Wet open land

4.1 Mires

4.1.1 Ombrogenous mires (upland moors)

4.1.2 Soligenous mires (lowland bogs)

4.2 Wet tundra

4.3 Other wet open land, n.e.s.

5. Dry open land with special vegetation cover

5.1 Heathland

5.2 Dry tundra

5.3 Mountainous grassland

5.3.1 Used for grazing of domestic animals

5.3.2 Not used for grazing of domestic animals

5.4 Other, n.e.s.

6. Open land without, or with insignificant, vegetation cover

6.1 Bare rocks, glaciers, perpetual snow

6.1.1 Bare rocks

6.1.2 Glaciers and perpetual snow

6.2 Sand-beaches, dunes, other sandy land

6.3 Other, n.e.s.

7. Waters

7.1 Inland waters
of which: In harbour areas

7.1.1 Natural watercourses

7.1.2 Artificial watercourses

7.1.3 Inland sea (freshwater or saline), lakes, ponds, coastal land-locked bodies of water

7.1.4 Artificial water impoundments

7.1.5 Other inland waters, n.e.s.

7.2 Tidal waters
of which: In harbour areas

7.2.1 Coastal lagoons

7.2.2 Estuaries

7.2.3 Other tidal waters, n.e.s.

Annex II

CATEGORIES OF THE ECE STANDARD STATISTICAL CLASSIFICATION OF WATER USE

1. Water resources [Unit: 10^6 or 10^9 m^3/year; per cent where stated]

   1.1 Inflow of surface water

      1.1.1 Long-term annual average

      1.1.2 Current year

   1.2 Outflow of surface water

      1.2.1 Long-term annual average

      1.2.2 Current year

   1.3 Precipitation

      1.3.1 Long-term annual average

      1.3.2 Current year

   1.4 Evaporation

      1.4.1 Long-term annual average

      1.4.2 Current year

   1.5 Annual change in groundwater resources [volume or per cent]

   1.6 Groundwater available for annual abstraction

2. Water abstraction [10^3, 10^6 or 10^9 m^3/year]

   2.1 Abstraction from surface water resources

   2.2 Abstraction from groundwater resources

   2.3 Abstraction from other water resources

   2.4 Total abstraction by type of activity (2.1 + 2.2 + 2.3)

   2.5 Returned water by type of activity

   2.6 Net total abstraction by type of activity (2.4 - 2.5)
   <u>of which</u>: Treated prior to first use

The following classification by type of activity (ISIC/Rev.3) is recommended:

(1) Domestic sector

(2) Collection, purification and distribution of water (ISIC 41)

(3) Agriculture, forestry, hunting, fishing and related service activities (ISIC 01 to 05)

(4) Mining and quarrying (ISIC 10-14)

(5) Manufacturing (ISIC 15-37)

(6) Production, collection and distribution of electricity (ISIC 401)

(7) Construction (ISIC 45)

(8) Other activities

3. Water supply [10^3, 10^6 or 10^9 m^3/year]

3.1 Public supply by type of activity

3.2 Self-supply by type of activity

3.3 Other supply by type of activity

3.4 Total supply by type of activity

3.5 Losses during transport

The following breakdown by type of activity (ISIC/Rev.3) is recommended:

(1) Domestic sector

(2) Agriculture, forestry, hunting, fishing and related service activities (ISIC 01 to 05)

(3) Mining of coal and lignite; extraction of peat (ISIC 10)

(4) Other mining and quarrying (ISIC 11 to 14)

Subtotal: Total mining etc. (ISIC 10-14)

(5) Manufacture of basic metals (ISIC 27)

(6) Manufacture of transport equipment (ISIC 35)

(7) Manufacture of textiles, wearing apparel; dressing and dyeing of fur; tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear (ISIC 17-19)

(8) Manufacture of paper and paper products (ISIC 21)

(9) Manufacture of chemicals and chemical products (ISIC 24)

(10) Manufacture of coke, refined petroleum products and nuclear fuel (ISIC 23)

(11) Other manufacturing

Subtotal: Total manufacturing (ISIC 15-37)

(12) Production, collection and distribution of electricity (ISIC 401)

(13) Other industrial activities

Subtotal: All industrial activities

(14) Other activities

4. Agricultural and industrial use of water [10^3 or 10^6 m^3/year]

4.1 Agricultural and similar use of water

4.1.1 Spray irrigation

4.1.2 Flood irrigation

4.1.3 Offstream fish farming

4.1.4 Other agricultural or similar use

4.2 Industrial use of water

4.2.1 Cooling in electricity generation

4.2.2 Cooling, except in electricity generation

4.2.3 Consumptive use of water

4.2.4 Other industrial use

4.2.5 Recycled water

Categories 4.2.1 to 4.2.5 should be broken down by type of industrial activity. It is recommended to use activities (3) to (13), as appropriate, of the list of activities specified under section 3 above for this purpose, including the related subtotals.

5. Waste-water [10^3, 10^6 or 10^9 m^3/year]

5.1 Collection of waste-water through public sewerage
of which: From industry

5.2 Generation of waste-water in industry by type of activity

5.3 Waste-water treatment

5.3.1 In public treatment plants

5.3.1.1 Mechanical treatment technology

5.3.1.2 Biological treatment technology

5.3.1.3 Advanced treatment technology

5.3.2 In industrial treatment plants

5.3.2.1 Mechanical treatment technology

5.3.2.2 Biological treatment technology

5.3.2.3 Advanced treatment technology

5.3.3 Total waste-water treated
of which: Treated to national standards

5.4 Discharge of waste-water

5.4.1 From public sewerage without treatment

5.4.2 From public sewerage after treatment

5.4.3 From industry without treatment (by type of activity)

5.4.4 From industry after treatment (by type of activity)

5.4.5 Total discharge of waste-water

5.4.5.1 Into inland waters

5.4.5.2 Into coastal sea

For information: Losses of waste-water during transport

Total discharge of cooling water

5.5 Sludge from waste-water treatment

5.5.1 Generation

5.5.1.1 In public treatment plants

5.5.1.2 In industrial treatment plants

5.5.2 Use or treatment/disposal of sludge from public treatment plants

5.5.2.1 Use in agriculture

5.5.2.2 Other use

5.5.2.3 Incineration

5.5.2.4 Dumping at sea

5.5.2.5 Dumping on land

5.5.3 Use or treatment/disposal of sludge from industrial treatment plants

5.5.3.1 Use in agriculture

5.5.3.2 Other use

5.5.3.3 Incineration

5.5.3.4 Dumping at sea

5.5.3.5 Dumping on land

The activity breakdown recommended for use in relation to section 5 is that specified in section 4.

Annex III

CATEGORIES OF THE ECE STANDARD STATISTICAL CLASSIFICATION OF AMBIENT AIR QUALITY

A. Chemicals and their relevance in measurement/estimation

(E = emissions; C = concentrations; I = at impact stations; B = at national or regional background stations; G = at global background stations)

		E	CI	CB	CG
1.	Sulphur compounds				
	1.1 Sulphur oxides (including emissions of hydrogen sulphide)	X	X	X	
	1.2 Particulate sulphate			X	X
2.	Oxidized nitrogen compounds and oxidants				
	2.1 NOX (excluding nitrous oxide)	X	X	X	
	2.2 Nitric acid and particulate nitrate		X	X	X
	2.3 Ozone: tropospheric			X	X
	stratospheric				X
	2.4 Nitrous oxide (tropospheric)				X
3.	Reduced nitrogen compounds				
	3.1 Ammonia	X	X	X	
	3.2 Particulate ammonium compounds		X	X	X
4.	Inorganic carbon compounds				
	4.1 Carbon monoxide	X	X		X
	4.2 Carbon dioxide	X			X
5.	Halogens and inorganic halogen compounds	X		X	
6.	Volatile organic compounds a/ (including halogenated compounds)				

---

a/ It may become possible to add relevant dioxins (toxic polychlorinated debenzo dioxins and furans) as a separate group under this heading once sufficiently reliable emission and/or concentration data become available.

	E	CI	CB	CG
6.1 Methane		X		X
6.2 Non-methane compounds	X	X	X	
6.2.1 Aldehydes	X	X	X	
6.2.2 Chlorofluorocarbons (CFCs)	X			X
6.2.3 Halons	X			X
6.2.4 Other halogenated hydrocarbons	X			X
7. Heavy metals (to be specified)	X	X	X	
8. Suspended particulate matter	X	X	X	X
9. Chemical composition of precipitation water			X	X

B. Emissions
[tonnes/year]

1. Emissions from stationary sources

1.1 By process

1.1.1 Combustion of fuels

1.1.1.1 In power plants

1.1.1.2 In industrial establishments, excluding power plants

1.1.1.3 In other economic activities and domestic heating

1.1.2 Other processes, including evaporation

1.1.2.1 In industrial sources

1.1.2.2 In non-industrial and domestic sources

1.2 By activity

1.2.1 Agricultural etc. (ISIC 01)

1.2.2 Mining and quarrying (ISIC 10-14)

1.2.3 Manufacture of paper and paper products (ISIC 21)

1.2.4 Manufacture of coke (ISIC 231)

1.2.5 Manufacture of refined petroleum products (ISIC 232)

1.2.6 Manufacture of chemicals and chemical products (ISIC 24)

1.2.7 Manufacture of rubber and plastic products (ISIC 25)

1.2.8 Manufacture of other non-metallic mineral products (ISIC 26)

1.2.9 Manufacture of basic iron and steel (ISIC 271)

1.2.10 Manufacture of basic precious and non-ferrous metal (ISIC 272)

1.2.11 Electricity, gas, steam and hot water supply (ISIC 40)

1.2.12 Other economic activities

1.2.13 Households

1.3 By availability of cleaning

1.3.1 Without cleaning

1.3.2 With cleaning or equivalent device

2. Emission from mobile sources

2.1 From road transport

2.1.1 Using motor spirit (gasoline)

2.1.2 Using gas (diesel) oil

2.1.3 Using other fuels

2.2 From railway transport

2.3 From other transport

2.4 From other mobile sources

Emissions should at this time be reported on the following materials:

Sulphur oxides, including hydrogen sulphide [in units of SO2]

NOX, excluding nitrous oxide [in units of NO2]

Ammonia

Carbon monoxide

Carbon dioxide [in units of CO2]

Total volatile organic compounds, including halogenated compounds

Lead

Mercury

Cadmium

Suspended particulate matter

Emission data on items 1.1.1.1 to 1.1.1.3 should be broken down by type of fuel as follows:

Coal and coal products

Products obtained from petroleum refineries

Natural gas

Other fuels

C. Concentrations in ambient air

2.1 Concentrations at impact stations

2.1.1 Sulphur oxides [expressed as SO2]

2.1.2 Nitrogen oxides [expressed as NO2]

2.1.3 Carbon monoxide

2.1.4 Volatile organic compounds (VOCs) (to be specified)

2.1.5 Lead

2.1.6 Mercury

2.1.7 Cadmium

2.1.8 Suspended particulate matter

2.2 Concentrations at national/regional background stations

2.2.1 Sulphur oxides [expressed as SO2]

2.2.2 Particulate sulphate

2.2.3 Nitrogen oxides [expressed as NO2]

2.2.4 Nitric acid and particulate nitrate

2.2.5 Ozone (tropospheric)

2.2.6 Ammonia

2.2.7 Particulate ammonium compounds

2.2.8 VOCs (to be specified)

2.2.9 Chemical composition of precipitation (pH/H+ ammonium, nitrate, chloride and sulphate ions, sodium, potassium, magnesium and calcium ions, conductivity)

2.3 Concentrations at global background stations

2.3.1 Ozone (stratospheric)

2.3.2 Carbon dioxide

2.3.3 Methane

2.3.4 CFCs

2.3.5 Halons

2.3.6 Nitrous oxide

2.3.7 Suspended particulate matter

D. Depositions

3.1 Wet acidifying deposition

3.1.1 Sulphur dioxide and sulphate expressed in sulphur content

3.1.2 Nitrogen dioxide, nitric acid and nitrate expressed in nitrogen content

3.1.3 Ammonia and ammonium compounds expressed in nitrogen content

3.1.4 pH/H+

Note: Other deposition indicators may be added, once their development is sufficiently advanced.

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DEMOGRAPHIC, SOCIAL AND ENVIRONMENT STATISTICS: ENVIRONMENT STATISTICS

Report of the Secretary-General

SUMMARY

The present report describes progress made in the preparation of technical reports on concepts and methods of environment statistics (paras. 2-4) and the development of environmental accounting (paras. 5-7). Outcomes of the meeting of the Intergovernmental Working Group on the Advancement of Environment Statistics are described (paras. 8, 9), including requests regarding technical co-operation (para. 19). The main issues stemming from the Third Consultation on the Co-ordination of International Environmental Data Collection are elaborated upon (paras. 10-12). Section III (paras. 13-18) describes current activities in the compilation and dissemination of international environment statistics. Technical co-operation activities are described in paragraphs 19-21. Section V (paras. 22-24) sets out proposals for expanded work in environment statistics for the 1992-1993 biennium. Points for discussion are presented in section VI (para. 25).

* E/CN.3/1991/1.

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INTRODUCTION

1. At its twenty-fifth session, the Statistical Commission confirmed the continuing high priority of the environment statistics programme and requested that the Secretary-General prepare a report on progress made in the development of environment statistics and future plans for consideration at its twenty-sixth session. 1/ In line with the decision of the Statistical Commission's Working Group on International Statistical Programmes and Co-ordination at its thirteenth session, the present report also describes the work of the Statistical Office of the United Nations Secretariat, other international organizations and selected non-governmental organizations. 2/ In addition, following the request of the Statistical Commission that a report on methods of environment statistics developed under the work programme of the Conference of European Statisticians, be submitted to the Commission at its twenty-sixth session, that report (document E/CN.3/1991/22) is also before the Commission. 3/ The Working Group considered that this second report would help the Statistical Commission assess the relevance of the work of the Economic Commission for Europe (ECE) as a basis for developing classifications and other aspects of methodology at the global level in this field. 4/

I. METHODOLOGICAL WORK

A. Technical reports on environment statistics

2. The Statistical Office has focused its methodological work on the preparation of a Framework for the Development of Environment Statistics 5/ (FDES) and technical reports on statistics of the environmental aspects of human settlements and of the natural environment. Concepts and Methods of Environment Statistics: Human Settlements Statistics - A Technical Report 6/ was published in 1988. The second report on statistics of the natural environment has been prepared by a consultant with the support of Statistics Canada. The draft report was widely circulated for comments to national and international organizations and a number of individual experts. It is currently being revised to take into account comments received and is expected to be submitted for publication before the end of 1990.

3. The report on statistics of the natural environment proposes concepts, definitions and classifications for a wide range of variables that describe high-priority concerns in many countries. It provides a broad list of statistical variables from which those statistics that meet particular data needs, socio-economic and environmental conditions and statistical capabilities can be selected for the purposes of establishing a national statistical system and programme of data collection and dissemination. As its companion report on human settlements statistics, the present report has been based on FDES, which will permit the assessment of relationships of environmental concerns with social, demographic and economic processes and activities. The common framework also facilitates cross-references between the two reports so as to indicate the interrelationship between "man-made" and "natural" components of the environment.

4. Annexes I and II present the statistical topics addressed in both reports in the FDES format, describing their scope and coverage. Extensive use of national and international compendia of environment statistics has been made in order to identify those concepts, definitions, classifications and data sources which are most widely applied. The statistical variables identified in this manner are thus likely to reflect typical data needs of planners, policy makers and administrators in environmental and related socio-economic fields. It is intended to promote the application of the methodologies proposed in the reports at the regional level in co-operation with the regional commissions of the United Nations and other interested international organizations. The experience gained from applying the reports in countries is expected to lead to further modification, revision, extension and more detailed practical guidelines in selected high-priority areas.

B. Environmental accounting

5. At its twenty-fifth session, the Statistical Commission stressed the need to further extend the dialogue between statisticians, national accountants, resource economists and environmentalists in the field of environmental and natural resource accounting. National accounts experts and environmental economists met in a Joint United Nations Environment Programme (UNEP)-World Bank Expert Meeting on "Environmental Accounting and the System of National Accounts (SNA)" (Paris, 21-22 November 1988) to discuss a draft framework for a set of environmental satellite accounts. The meeting recommended, inter alia, that:

(a) A classification of intermediate consumption by function and government expenditure by function should be developed where "environmental goods and services" are identified;

(b) Accounting for stocks of natural resources should be done in physical terms, not in monetary terms; monetary estimations, however, should be attempted for changes in the stock of resources within the period under consideration;

(c) The revised version of the "blue book" (the volume describing the core accounts of the SNA), to be issued in 1993, should have a section in which satellite accounts for the environment are outlined.

6. The Statistical Office submitted a revised version of an "SNA Framework for Integrated Environmental and Economic Accounting" to the twenty-first session of the International Association for Research in Income and Wealth (IARIW) (Lahnstein, Federal Republic of Germany, 20-25 August 1989). The meeting welcomed the proposed framework and decided to hold a special session on natural resource and environmental accounting in May 1991 in Baden (Austria).

7. The framework has also served as the basis for the preparation of a "Handbook of Environmental Accounting". A draft of the Handbook is being prepared by a consultant in collaboration with the World Bank and UNEP and with the financial support of the Jessie Smith Noyes and Ford Foundations. Various components of the draft Handbook are being tested in a World Bank pilot project in Mexico. A similar

project is planned for a developing country in Asia. Efforts are also under way to encourage some other countries, both developed and developing, to undertake such tests. A first draft of the Handbook will be circulated widely for comments in the fourth quarter of 1990. A revised version of the draft will be discussed at the IARIW meeting in 1991. A workshop held in conjunction with this session is expected to discuss future work on the Handbook, based on national experiences. It is planned to submit the Handbook for publication in the SNA Handbook Series by the end of 1991.

C. Intergovernmental Working Group on the Advancement of Environment Statistics

8. The first meeting of the Working Group on the Advancement of Environment Statistics took place in Oslo from 2 to 4 May 1990. It was attended by eight developed 7/ and seven developing countries, 8/ representatives from the Statistical Office of the United Nations Secretariat, observers from various United Nations specialized agencies and an intergovernmental organization. The seven developing countries that did participate were funded by the national statistical offices of Norway, Sweden and Canada and the World Health Organization. Several other developing countries wished to participate but could not do so due to financial constraints.

9. Regarding the methodological development of environment statistics, the meeting decided that for each of a number of important topics a technical report would be developed. The initial draft would be prepared jointly by a developing and developed country, and the draft would then be discussed at the next meeting of the Working Group with a view to expanding these methodologies for application at the international level. This would take into account the view expressed by the Statistical Commission at its twenty-fifth session that some outputs of the work on methods of environment statistics of the Conference of European Statisticians might contribute to work at the global level. The objective is to expand existing ECE classifications in the field of environment statistics by adapting them to global applications and linking them to conventional social, demographic and economic statistics. The draft technical reports would then be circulated for comments to Governments, international organizations and experts in the field. Eventually, these methodologies could be published in the technical report series on environment statistics of the Statistical Office. Subject to consultation with the authorities in the respective countries, the initial work of the Working Group will focus on environment-related agricultural statistics, statistics of water use and water quality, statistics of air pollution and energy use, and a glossary of terms applied in environment statistics.

II. CO-ORDINATION

10. The third Consultation on the Co-ordination of International Environmental Data Collection was convened in Geneva on 19 March 1990 by the ECE secretariat. The discussion focused on the following issues: (a) a planned inventory of existing environmental data bases for use by the participants in the Consultation; (b) the tentative identification of further lead data bases; and (c) the

organization of the co-ordination of international environmental data work in the future.

11. The Statistical Office conveyed to the meeting its agreement that a more formal approach to organizing future sessions of this working group would underline the increasing importance of co-ordination in the field of environment statistics. It also invited the meeting to discuss the need for further updating the "Review of International Environmental Data Bases and Data Collections", as requested by the Administrative Committee on Co-ordination (ACC) Sub-Committee at its twenty-third session. In view of a similar survey to be carried out by the Statistical Office of the European Communities (EUROSTAT) on behalf of the Consultation on Co-ordination, and considering the limited resources available, it is not intended for the time being to update the Review, which was also presented to the Statistical Commission at its twenty-fifth session.

12. Following a recommendation of the Consultation on Co-ordination to establish an Intersecretariat Working Group on Environmental Data, the Statistical Office intends to convene a first meeting of this Intersecretariat Working Group in early 1991. The ACC Sub-Committee, at its twenty-fourth session (Vienna, 18-22 June 1990), endorsed the establishment of the Working Group and noted interest on the part of many members of the Sub-Committee to participate in it. The report of the meeting will be submitted to the ACC Sub-Committee at its twenty-fifth session for approval and follow-up. The objectives of the Intersecretariat Working Group as identified by the Consultation on Co-ordination are: (a) maintenance of mutual information and contact between those responsible for the conceptual, technical and organizational development of relevant data bases; (b) development of improved co-operation between international data base managers in their daily work; and (c) exchange of information on all conceptual and methodological work done in the different forums of international co-operation over environmental data.

III. COMPILATION AND DISSEMINATION OF ENVIRONMENT STATISTICS

13. ECE will publish a second edition of its regional compendium, entitled "Environment Statistics in Europe and North America" in 1991. The Meeting on Compendia of ECE Environment Statistics, held in Geneva from 20 to 23 March 1990, agreed to follow the practice that was successfully established during the compilation of the experimental compendium in 1987.

14. The Economic Commission for Africa (ECA) is in the process of compiling an "African Compendium on Environment Statistics" which is expected to be published later this year. This experimental issue will contain major areas where environmental data for Africa are currently available. Monographs on selected environmental issues will also be included in the issue.

15. With respect to the other regional commissions, no comprehensive programme of international data compilation is envisaged for the time being. The Economic and Social Commission for Asia and the Pacific (ESCAP) does not yet have an environment

statistics programme but is very supportive of country initiatives and to the promotion of data collection in member countries. The Economic Commission for Latin America and the Caribbean (ECLAC) has recently proposed the establishment of a statistical environmental data base for the Caribbean region. ECLAC also intends to prepare an initial document on environment statistics of the Caribbean by October 1990. It views the issuance of this first edition as an initial step towards a programme aimed at the enhancement of the capability of the region to collect, store, analyse and disseminate environmental data as it relates to the overall development process.

16. The Global Environment Monitoring System's (GEMS) Monitoring and Assessment Research Centre (London), in co-operation with the World Resources Institute (WRI) (Washington, D.C.) and the United Kingdom Department of the Environment (London), recently prepared the second edition of the Environmental Data Report (1989/90) 9/ for the United Nations Environment Programme (UNEP). This report compiles global environmental data from various national and international sources. The second edition has built on the information base established in the first edition with updated information on key issues and the inclusion of new topics and additional data.

17. As described above, WRI co-operated with other organizations in the preparation of the second edition of the UNEP Environmental Data Report. WRI, in collaboration with UNEP and the United Nations Development Programme (UNDP), has recently published World Resources 1990-91, 10/ and its 1992-93 edition will focus on environment and development. It also published a Guide to Key Environmental Statistics In The U.S. Government 11/ in April 1990. Finally, it is undertaking a review of global environmental indicators.

18. Comprehensive data compilation and dissemination at the international level is not envisaged by the Statistical Office until an adequate number of regional and national programmes of environment statistics have been established. However, it is intended to intensify the co-ordination of regional activities and to embark upon data compilation in selected areas in the proposed work programme for 1992-1993 biennium subject to the availability of resources (see sect. V below).

IV. TECHNICAL CO-OPERATION

19. Regarding technical co-operation, the Intergovernmental Working Group on the Advancement of Environment Statistics recommended that such co-operation in the field of environment statistics needed to be expanded. Major requests of the Working Group in this context included the following: (a) development of an inventory of training facilities on environment statistics available at the international level; (b) organization of country or regional workshops and country projects; (c) arrangement for experts for short-term consultancies to diagnose the conditions for establishing an environment statistics programme in individual countries; (d) technical assistance in training statisticians in the field of environment statistics; (e) technical assistance in improving household surveys and related methodologies for purposes of environmental analysis; and (f) identification of a network of environmental statisticians and creation of a bulletin or newsletter as a communication medium.

20. The Statistical Institute for Asia and the Pacific, under the aegis of ESCAP, will be holding a workshop entitled "Managing National Statistical Offices" (Tokyo, 30 October-3 November 1990). The Statistical Office of the United Nations Secretariat has accepted an invitation to lead the discussion on environment statistics at this workshop.

21. Co-operation and information exchange has been maintained with the International Statistical Institute (ISI) and WRI. ISI is collaborating with ECA in the development of environment statistics in the ECA region. ISI has proposed a project to produce a three-unit, video-based course on environment statistics for African countries during a 2 1/2 year period, from 1 July 1990 to 31 December 1992. The three units will cover the following topics: advocacy and motivation for the development of a minimum programme of environment statistics for Africa; concepts and methods of environment statistics; and environmental accounting for sustainable development. The Statistical Office has organized a meeting on "The Role of Statistical Offices in Environmental Statistics" as part of the Second Independent Conference of the International Association for Official Statistics of ISI, to be held in Beijing from 16 to 19 October 1990.

V. PROPOSED PROGRAMME OF WORK

22. Environmental issues have come to the forefront of the national and international political agenda. The forthcoming United Nations Conference on Environment and Development (UNCED) will provide a forum for reaching international consensus on national and international approaches to environmental problems and issues. Already in both developed and developing countries, increased concerns with environmental issues have created demands for a broad range of environment statistics and indicators, including integrated economic and environmental accounting. For example, the Preparatory Committee of UNCED, at its first substantive session in Nairobi (6-31 August 1990), requested the Secretary-General of the Conference to take up specific studies on the relationship between economic and environment policy, and also on economic and environmental indicators 12/ drawing on studies undertaken by relevant international organizations. The proposed programme of work is to assist the international community in the assessment of the interrelations between environment and development through the development and compilation of environmental and related socio-economic data.

23. Despite these developments, work on environment statistics in the Statistical Office of the United Nations Secretariat has been hampered by lack of these developments, work on environment statistics in the Statistical Office of the United Nations Secretariat has been hampered by lack of resources. The United Nations Statistical Commission has repeatedly stressed the importance of strengthening international work in this area, in particular the development of concepts, methods and classifications, and the promotion, co-ordination and support of regional and national programmes. Accordingly, as a step in mobilizing necessary resources for expanded activities by the Statistical Office in the field of environment statistics and drawing on the recommendations of the Intergovernmental Working Group on the Advancement of Environment Statistics, the following activities are proposed for implementation in 1992-1993, subject to the availability of resources:

(a) Development of concepts, methods and classifications for use by Member States:

(i) Environment statistics and indicators:

a. Revision and modification of existing methodologies (in technical reports and handbooks);

b. Development of further in-depth methodologies and classifications in selected areas of high priority (such as technical reports, guidelines or recommendations);

c. Provision of further technical materials on such topics as the organization of national statistical activities in the field of environment statistics, methods for selecting environmental indicators and ways of enhancing the dissemination, use and analysis of environment statistics (in technical reports and handbooks);

d. Preparation of a glossary of terms applied in environment statistics, in consultation with UNEP, ECE and selected Member States;

(ii) Integrated environmental-economic accounting:

a. Review of international efforts;

b. Provision of revised and updated general guidelines;

c. In-depth technical reports in selected areas of environmental and natural resource accounting;

d. Analytical studies of the results and use of integrated accounts;

(b) Data collection, dissemination and analysis:

(i) Co-ordination of a global programme of collection and dissemination of environment statistics;

(ii) Compilation of international series of environment statistics and indicators, including environmentally adjusted accounting aggregates (to be issued in appropriate publications of the Statistical Office of the United Nations Secretariat);

(iii) Provision of environment statistics and indicators, including related accounting aggregates, to international and national users in machine-readable form;

(iv) Development of appropriate methods for evaluating data quality and estimating missing data;

(v) Enhancing the utilization of environment statistics and indicators through the development of prototype analytical studies of socio-economic and environmental interrelations and through collaborative studies with other organizations;

(c) Support for technical co-operation:

(i) Substantive support to regional commissions for the implementation of regional and national programmes of environment statistics and indicators;

(ii) Substantive backstopping of technical co-operation by promoting environment statistics and accounting methods in developing countries through country projects;

(iii) Development of an inventory of training facilities on environment statistics;

(iv) Organization of training seminars and workshops on various aspects of environment statistics and indicators at national and regional levels;

(d) Promotion of co-ordination of international work on environment statistics:

(i) Co-ordination of a global programme of environment statistics, including regional activities (see (b) (i) above);

(ii) Co-ordination of the development and use of international environmental data bases with the assistance of the proposed Intersecretariat Working Group on Environmental Data and the ACC Sub-Committee on Statistical Activities, focusing on:

a. Development of data base inventories;

b. Identification of lead agencies in particular areas of environmental data collection and information systems;

c. Identification of a network of environmental statisticians and creation of a bulletin or newsletter as a communication medium.

24. The Statistical Commission, at its twenty-fifth session, stressed the need for securing extrabudgetary resources or otherwise mobilizing external support for the rapid implementation of the environment statistics programme of the Statistical Office and the regional commissions. 13/ The Intergovernmental Working Group on the Advancement of Environment Statistics noted with appreciation the above proposal for an expanded work programme for 1992-1993 and agreed that any such

expanded work programme could not be met through the reallocation of existing resources but would require the provision of additional resources. 14/

V. POINTS FOR DISCUSSION

25. The Statistical Commission may wish to comment on:

(a) Progress made in the preparation of the technical report entitled "Concepts and Methods of Environment Statistics: Statistics of the Natural Environment";

(b) Progress made on the development of a "Handbook of Environmental Accounting";

(c) The work of the Intergovernmental Working Group on the Advancement of Environment Statistics;

(d) The establishment and objectives of an Intersecretariat Working Group on Environmental Data;

(e) The proposals for expanded work by the Statistical Office of the United Nations Secretariat in environment statistics for the biennium 1992-1993 and recommended priorities among the activities proposed;

(f) Approaches for securing the necessary resources for these proposed expanded activities, taking into account the need to obtain substantial additional resources for their implementation.

Notes

1/ Official Records of the Economic and Social Council, 1989, Supplement No. 3 (E/1989/21), para. 153.

2/ "Report of the Working Group on International Statistical Programmes and Co-ordination on its thirteenth session" (E/CN.3/1991/2), para. 46.

3/ Official Records of the Economic and Social Council, 1989, Supplement No. 3 (E/1989/21).

4/ "Report of the Working Group on International Statistical Programmes and Co-ordination on its thirteenth session" (E/CN.3/1991/2).

5/ United Nations publication, Sales No. E.84.XVII.12.

6/ United Nations publication, Sales No. E.88.XVII.14.

7/ Canada, Federal Republic of Germany, Finland, France, Netherlands, Norway, Sweden and Switzerland.

Notes (continued)

8/ Brazil, India, Indonesia, Lesotho, Mexico, United Republic of Tanzania, Zimbabwe.

9/ United Nations Environment Programme, Environmental Data Report, 2nd edition, 1989/90 (Oxford, United Kingdom, B. Blackwell).

10/ World Resources Institute, World Resources 1990-91 (Oxford, Oxford University Press, 1990).

11/ World Resources Institute, Guide to Key Environmental Statistics in the United States Government (Washington, D.C., World Resources Institute, 1990).

12/ Report of the Preparatory Committee for the United Nations Conference on Environment and Development (A/45/46), annex I, decision 1/28. (The report will be issued subsequently as Official Records of the General Assembly, Forty-fifth Session, Supplement No. 46 (A/45/46)).

13/ Official Records of the Economic and Social Council, 1989, Supplement No. 3 (E/1989/21).

14/ "Intergovernmental Working Group on the Advancement of Environment Statistics, report of the first meeting" (ESA/STAT/AC.37).

ANNEX I

Framework for the Development of Environment Statistics - Human Settlements

Social and economic activities, natural events A	Environmental impacts of activities/events B	Responses to environmental impacts C	Stocks, inventories and background conditions D
1. Settlements growth and change 1.1 Population growth and change 1.2 Construction of shelter and infrastructure 1.3 Utilities (energy and water supply) 1.4 Transport 1.5 Land use in human settlements 2. Other activities 2.1 Emissions and waste discharge 2.2 Hazardous activities at work-place (not developed) 3. Natural events	1. Conditions of shelter, infrastructure and services 1.1 Housing 1.2 Access to infrastructure and services 1.3 Human settlements sprawl and dispersion 2. Conditions of life-supporting resources 2.1 Ambient concentration of pollutants and wastes 2.2 Biological and ecological impacts (not developed) 2.3 Microclimates (not developed) 3. Health and welfare conditions in human settlements 3.1 Exposure and health effects 3.2 Settlements-related damage and accidents 3.3 Perception of the quality of life in human settlements	1. Human settlements policies and programmes 2. Pollution monitoring and control 2.1 Environmental standards 2.2 Monitoring 2.3 Treatment, disposal and reuse of discharge 2.4 Expenditure for pollution control 3. Prevention and hazard mitigation of natural disasters	1. Stocks of shelter and infrastructure 1.1 Housing stock 1.2 Non-residential buildings and other physical infrastructure 2. Environmental inventories 2.1 Emissions 2.2 Hazardous work environment and industries (not developed) 2.3 Human settlements vulnerable to natural disasters 3. Background conditions 3.1 Land use 3.2 Demographic and social conditions 3.3 Economic situation 3.4 Weather/climate conditions

ANNEX II

Framework for the Development of Environment Statistics - Natural Environment

Social and economic activities, natural events A	Environmental impacts of activities/events B	Responses to environmental impacts C	Stocks and inventories D
1. Use of natural resources and related activities 1.1 Agriculture 1.2 Forestry 1.3 Hunting and trapping 1.4 Fisheries 1.5 Minerals, mining and quarrying 1.6 Energy production and consumption 1.7 Water use for human activities 1.8 Land use and environmental restructuring	1. Resource depletion and increase 1.1 Biological resources 1.2 Cyclical and non-renewable resources	1. Resource management	1. Biological resources 1.1 Agricultural stocks 1.2 Forest stocks 1.3 Fish stocks 1.4 Fauna and flora inventories
2. Emissions, waste loadings and application of biochemicals 2.1 Emissions and waste loadings in environmental media 2.2 Application of biochemicals	2. Environmental quality 2.1 Atmospheric pollution 2.2 Water quality 2.3 Soil and land quality	2. Pollution monitoring and control	2. Cyclical and non-renewable resources 2.1 Hydrological systems 2.2 Climate 2.3 Land/soil 2.4 Mineral resources
3. Natural events	3. Quality of biota and ecosystems 3.1 Quality of biota 3.2 State of ecosystems	3. Prevention and hazard mitigation of natural disasters	3. Energy stocks 3.1 Non-renewable energy sources 3.2 Renewable energy sources
	4. Human health and environmental disasters 4.1 Human health and contamination 4.2 Impact of environmental disasters	4. Non-government (individual) responses	4. Ecosystems

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the provisional agenda*

DEMOGRAPHIC, SOCIAL AND ENVIRONMENT STATISTICS: POPULATION AND HOUSING CENSUSES; SOCIAL STATISTICS AND INDICATORS; HUMAN SETTLEMENTS STATISTICS

GENERAL DEVELOPMENT AND INTEGRATION OF METHODOLOGICAL WORK

General development and integration of methodological work, including experience and progress made in international classifications

Report of the Secretary-General

SUMMARY

The main purpose of the present report is to keep the Commission informed of developments in methodological work in certain fields that are important but that do not call for separate documents at this time. The document thus describes methodological work in the areas of international classifications (paras. 4-16), energy (paras. 17-26), international trade and transport statistics, including the Automated System for Customs Data (ASYCUDA) (paras. 27-38), the 1990 round of population and housing censuses (paras. 39-54), housing and human settlements statistics (paras. 55-62) and statistical programmes for social indicators (paras. 63-71). Points for discussion are also presented (para. 72).

* E/CN.3/1991/1.

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INTRODUCTION

1. At its twenty-fourth session, in 1987, the Statistical Commission expressed concern at the amount of documentation proposed for the twenty-fifth session. 1/ In response to that concern, the Working Group on International Statistical Programmes and Co-ordination, at its twelfth session, agreed that the new agenda item, entitled "General development and integration of methodological work", could usefully accommodate reporting on areas where no major discussion was expected, but for which the Commission needed to be kept informed of developments (E/CN.3/1989/20, para. 34). At its twenty-fifth session, the Commission had before it a document describing the methodological and related work in the areas of industrial, energy and international trade and transport statistics, population and housing censuses, and containing an overview of the scope and coverage of the methodological work programme of the Statistical Office of the United Nations Secretariat, including an indication of resource allocations (E/CN.3/1989/15). At its twenty-fifth session, the Statistical Commission took note of the report and agreed that comments by members of the Commission should be submitted in writing to the Statistical Office of the United Nations Secretariat for subsequent consideration by the Working Group on International Statistical Programmes and Co-ordination at its thirteenth session. The Commission requested a further report on the subject for consideration at its twenty-sixth session, in 1991. 2/ At its thirteenth session, in 1989, the Working Group considered the comments submitted by members of the Statistical Commission (see E/CN.3/1991/2, paras. 69-73). The Working Group considered that the present document served well the purpose of keeping the Commission informed of developments in methodological work in certain fields that were important but that did not call for separate documents at this time (E/CN.3/1991/2, para. 48). The Working Group also determined the subjects that were to be covered by the present report (see E/CN.3/1991/2, paras. 34, 35, 38, 47, 48 and 73).

2. The various sections of the present report are to be considered under specific agenda items as follows:

Chapter		Agenda item
I.	Summary review of the methodological work programme of the Statistical Office of the United Nations Secretariat	10. General development and integration of methodological work
II.	A. International classifications	10. General development and integration of methodological work
II.	B. Energy statistics	10. General development and integration of methodological work

Chapter			Agenda item
II.	C.	International trade and transport statistics, including the Automated System for Customs Data (ASYCUDA)	10. General development and integration of methodological work
II.	D.	Population and housing censuses	9 (a). Population and housing censuses
II.	E.	Housing and human settlements statistics	9 (f). Human settlements statistics
II.	F.	Statistical programmes for social indicators	9 (c). Social statistics and indicators

I. SUMMARY REVIEW OF THE METHODOLOGICAL WORK PROGRAMME OF THE STATISTICAL OFFICE OF THE UNITED NATIONS SECRETARIAT

3. The development of concepts, definitions, classifications and methods of data collection and dissemination is one of the subprogrammes of the Statistical Office of the United Nations Secretariat. Some of the documents before the Commission treat predominantly methodological questions, notably those on the review of the System of National Accounts (SNA) (agenda item 4 (a)). Other areas also address methodological issues as part of the efforts to improve data collection and dissemination, in particular in the areas of service statistics (agenda item 6), price statistics (agenda item 7), social statistics and indicators (agenda item 9 (c)), environment statistics (agenda item 9 (e)) and as part of the National Household Survey Capability Programme (agenda item 11 (b)). Methodological development in the areas listed in paragraph 2 above are described in section II. A summary review and indication of resources allocated overall to the methodological work of the Statistical Office of the United Nations Secretariat is contained in the note by the Secretary-General on the proposed work programme of the Statistical Office for 1992-1993, including relevant information on the medium-term plan for the period 1992-1997 (E/CN.3/1991/30).

II. ONGOING AND FUTURE WORK IN SELECTED AREAS

A. International classifications

Introduction

4. At its twenty-fifth session, the Statistical Commission approved the final draft of the revised International Standard Industrial Classification of All Economic Activities (ISIC), Rev.3, and the provisional Central Product Classification (CPC), modified to take into account comments by the Commission. 3/ The Commission requested that both classifications be published, with the necessary amendments, and that CPC also include draft explanatory notes for its services

part. 4/ In discussing the final draft of ISIC, Rev.3, the Commission emphasized the need for the definitions of the statistical units in ISIC, Rev.3, taking into account the different time-frame for the revision of SNA, to be in conformity with the definitions to be adopted in the revised SNA. 5/

(a) Finalization of ISIC, Rev.3, for publication

5. In accordance with the instructions given by the Commission at its twenty-fifth session, a number of amendments were introduced in the final draft of ISIC, Rev.3, for publication. 6/ These amendments included:

(a) Refining the titles of some ISIC categories, mostly in the manufacturing part;

(b) Clarifying the explanatory notes, especially for the construction industry and some service industries; in construction, a specification on how to deal with repair activities was introduced; in retail trade, the distinction between sales by stores and other sales modes and the classification of sales of goods manufactured by the same unit were clarified; the explanatory notes for "Research and development" were revised according to a proposal from the Organisation for Economic Co-operation and Development, and the delimitation of research and development activities from similar activities classified elsewhere was improved.

6. Subsequent to the twenty-fifth session of the Statistical Commission, the definition of the statistical units was discussed at the Expert Group Meeting on SNA Co-ordination held at New York in July 1989. The Expert Group attached high importance to the full consistency between SNA and ISIC in respect of statistical units. 7/ In discussing criteria relevant to defining the statistical units, the Expert Group considered homogeneity of economic activities carried out in a unit and homogeneity of location as the most important criteria. Data availability or record keeping (existence of production accounts) was considered important mostly in adapting the ideal (theoretical) definitions to real world circumstances (operational concepts). The Group considered that independence or autonomy of decision should not play a preponderant role in the definition of the establishment, in part because those elements were difficult to define. The Group considered, however, that independence should be included as a criterion in the definition of the enterprise which may be defined as the smallest independent legal entity (institutional unit of SNA). For the description of the different units, the Expert Group recommended that both theoretical and operational definitions, the latter reflecting real world circumstances, be included in ISIC, Rev.3, and SNA. The introduction to ISIC, Rev.3, was amended in light of those recommendations.

7. To facilitate the implementation and use of ISIC, Rev.3, the ISIC publication includes detailed correspondence tables of ISIC, Rev.2, into ISIC, Rev.3, and vice versa. These tables are intended to provide a standard interpretation to countries undertaking the transition from ISIC, Rev.2, to ISIC, Rev.3. The tables have been developed in such a way that there is a one-to-one correspondence between the categories of ISIC, Rev.2, and those of ISIC, Rev.3. As ISIC, Rev.3, is more detailed than ISIC, Rev.2, an additional fifth-digit breakdown of ISIC, Rev.3, and

fifth- and sixth-digit breakdowns of ISIC, Rev.2, categories were introduced to allow complete convertibility between the two revisions. These tables may assist countries in carrying out the coding and/or estimation needed for making the transition from ISIC, Rev.2, to ISIC, Rev.3, and provide a methodology that might be adapted by countries for developing the correspondence table between ISIC, Rev.3, and their national activity classifications.

(b) Finalization of the provisional CPC for publication

8. Work on finalizing the provisional CPC for publication has continued. This work has consisted mainly of revising the explanatory notes to the services part of CPC. Parts of these notes had been circulated at the twenty-fifth session of the Statistical Commission as a background document (informal note 2) and some other parts have been developed since then. Subsequently, comments were received from countries, some in the context of the Voorburg Group on Service Statistics at its 4th meeting at Ottawa in October 1989.

9. The introduction to CPC was revised in response to the comments received. In particular, information was incorporated on the distinction between goods and services in the case of compound products such as restaurant services, which have both a goods and a service component.

10. The interpretative rules of CPC have been finalized in line with the position taken by the Statistical Commission at its twenty-fifth session when it agreed that, for transportable goods, those rules should not differ even slightly from the rules of the Harmonized Commodity Description and Coding System (HS) of the Customs Co-operation Council (CCC). 8/ New draft rules for the services part of CPC were developed with major input from CCC, applying classification principles (classification in the most specific CPC category; classification by main component) to services that are already being used for transportable goods. These have been incorporated in the CPC publication.

11. A number of changes were introduced in the classification and the explanatory notes for the services part of CPC in order to improve the classification structure, the definition of the scope of CPC categories and delimitation between similar kinds of services and to introduce recent developments on service statistics, as follows:

(a) For some service industries, both structure and explanatory notes were revised. For example, under division 51, the subdivision for "installation work" was revised in order to better reflect the actual output structure of the industry. Division 53, "Land", was aligned with the Standard Statistical Classification of Land Use of the Economic Commission for Europe (CES/637), which was approved by the Conference of European Statisticians. 9/ Possible wider utilization of this classification, including possible use at the world level, is being discussed (see E/CN.3/1991/22). The scope of division 94 was tentatively broadened by the Statistical Office of the United Nations Secretariat to include environmental protection services reflecting the latest developments on an SNA satellite system of integrated economic-environmental accounting, which is being developed by the Statistical Office of the United Nations Secretariat in co-operation with the World Bank and other organizations;

(b) A more detailed and modern breakdown for group 752, "Telecommunications services", was introduced in response to a proposal received at the meeting of the Voorburg Group on Service Statistics held at Ottawa in October 1989.

12. A proposal concerning the detailed breakdown of division 81, "Financial intermediation services and auxiliary services therefor", is under study. The proposal involves a breakdown of division 81 according to basic functions such as intermediation, portfolio management, exchange of instruments and advising or counselling, followed by a subdivision according to financial instruments. This represents a different treatment as compared to the treatment of financial intermediation and related auxiliary activities as presented in ISIC, Rev.3.

13. Following the decision taken by the Statistical Commission at its twenty-fifth session, work on the development of correspondence tables among ISIC, Rev.3, the provisional CPC, the Standard International Trade Classification, Rev.3 (SITC, Rev.3) and HS is under way. The correspondence tables will consist of sorted listings of each of the four classifications, showing the correspondence with the other three. The tables are intended to link the four classifications and to meet important user needs in relating activity, product and specific foreign trade classifications. The correspondence tables will facilitate the integration of different kinds of statistics and make possible a computerized recompilation of data from one product classification to another. These correspondence tables will be made available in a printed form (a sales publication) and in a software version on PC diskettes.

(c) Proposals for future work on international economic classifications

14. The following activities related to the implementation and use of ISIC, Rev.3, and CPC and work on other economic classifications are envisaged:

(a) Preparation of commodity indexes for ISIC, Rev.3, and CPC using SITC, Rev.3, index for the transportable goods part of CPC;

(b) Preparation of the correspondence table between ISIC, Rev.3, and the Classification of Branches of the National Economy (CBNE) of the Council for Mutual Economic Assistance (CMEA). This work will be of particular importance in the light of recent developments in member countries of CMEA which are showing increasing interest in using ISIC parallel to CBNE;

(c) Revision of the Classification of the Functions of Government (COFOG) 10/ on the basis of the ongoing work on the revision of SNA and other recent developments;

(d) Provision of technical co-operation to countries in implementing and using the new classifications, e.g., in the form of workshops or advisory services advising on how to adapt the new classifications to individual country circumstances.

15. The schedule for completion of these activities will depend on the availability of resources in the Statistical Office of the United Nations Secretariat.

(d) Points for discussion

16. Points for discussion are set out in paragraph 72 (b).

B. Energy statistics

1. Publications

17. Work began in late 1989 on the preparation of a companion volume to the original methodological publication of the United Nations in energy statistics, namely, Concepts and Methods in Energy Statistics, with Special Reference to Energy Accounts and Balances: A Technical Report (ST/ESA/STAT/SER.F/29). 11/ This work was originally scheduled for the 1986-1987 biennium, but was delayed as consultancy funds were withdrawn owing to the financial crisis. With funds reallocated, the work was resumed, and a first draft of the volume has been received from the consultant.

18. The Concepts and Methods technical report mentioned above was drafted in 1978 and approved by an expert group meeting convened at New York from 6 to 14 March 1978. 12/ The technical report was intended to give a historical overview of the growth of energy statistics subsequent to the petroleum crisis of 1973. It also attempted to present viable approaches for the preparation of country energy balances. It has been used in many countries and is still in demand. However, much has occurred in this field since the mid-1970s and a working handbook for developing countries is essential.

19. The companion volume will update the original version where applicable, but will be prepared with the idea of serving as a working document or manual for developing countries to improve their energy statistics methodologies and data compilation activities along established international guidelines. It will be geared primarily towards methods of producing commodity statistics, with energy balances as the final result.

20. Additional material to that which was included in the Concepts and Methods technical report will include (a) an expanded treatment of traditional fuels and biomass, which are especially important for developing countries, and (b) a special section on microcomputer use and current software packages suitable for energy statistics use. This new technical report is not intended to replace the original Concepts and Methods technical report but will serve as a companion working document or manual to the more historically oriented original report.

2. Meetings attended

21. The Statistical Office of the United Nations Secretariat participated in the Energy Balance Methodology Workshop, organized by the International Energy Agency (IEA) at Paris in November 1989. The Workshop discussed the basic structure of the energy balances, use of satellite balances, dissemination of data, methodological problems related to calorific values, and treatment of heat, petrochemical feedstocks, traditional fuels and primary electricity. The Workshop was followed

by a meeting of the Intersecretariat Working Group on Energy Statistics (comprising the Statistical Office of the United Nations Secretariat, the Economic Commission for Europe (ECE), IEA, the Statistical Office of the European Economic Community (EUROSTAT), which concentrated its efforts towards further harmonization of definitions, questionnaires and methodology in energy statistics.

3. Future plans

22. A Workshop on Petroleum Statistics is planned to be held at Moscow in April 1991. It will be organized by the Department of Technical Co-operation for Development of the United Nations Secretariat in conjunction with the State Committee of the Union of Soviet Socialist Republics on Statistics, with substantive support from the Statistical Office of the United Nations Secretariat. The Workshop will have national statistical capability-building as a basic objective.

23. The immediate objectives of the Workshop are:

(a) To provide a forum for representatives of statistical offices or other national data-gathering agencies of countries in the regions of the Economic and Social Commission for Asia and the Pacific (ESCAP) and the Economic and Social Commission for Western Asia (ESCWA) to discuss the problems related to gathering reliable petroleum statistics, with special reference to end-use consumption;

(b) To acquaint the national producers of energy statistics with the concepts and definitions devised by the United Nations and to develop proposals for improving the collection and compilation of reliable petroleum statistics;

(c) To identify gaps in petroleum statistics (especially information such as prices, costs, value of exploration activities) and suggest possible approaches to filling those gaps;

(d) To promote further the development of regionally and internationally comparable petroleum statistics.

24. The outputs of the project will be the technical papers prepared by the participants and the Secretariat experts, as well as the report of the Workshop itself. The results of the Workshop will be reported to the Statistical Commission at its twenty-seventh session for consideration of possible follow-up actions. In addition, it is anticipated that a technical report, based on the results of the Workshop, will be prepared. The technical report will emphasize the further development and harmonization of methods, concepts, definitions and classifications of petroleum statistics, in physical as well as value terms. It will be primarily geared towards the needs of developing countries to improve their energy data collection activities in the petroleum sector.

25. The Workshop will provide an impetus to the development of petroleum statistics in national statistical organizations or other agencies which may then act as focal points in the production of integrated petroleum statistics for their country. In adopting uniform definitions and methodologies for data collection and

compilation, national statistical offices or other agencies can be expected to produce reliable petroleum statistics that are comparable both over time and across countries.

4. Points for discussion

26. Points for discussion are set out in paragraph 72 (c).

C. International trade and transport statistics, including the Automated System for Customs Data (ASYCUDA)

1. Commodity indexes to the Standard International Trade Classification, Revision 3 (SITC, Rev.3)

27. Work continued on methodological development and publications consequent to the revision of the Standard International Trade Classification (SITC). Commodity indexes to SITC, Rev.3, will be issued in two volumes. Volume I is planned for completion by the end of March 1991. It incorporates lists of commodities in alphabetical order under the most detailed headings of SITC, Rev.3. Volume II, which lists all commodities in alphabetical order, is expected to be completed by the end of June 1991. Drafts of various sections have been circulated to concerned organizations for technical review.

2. Methods used in compiling the United Nations price indexes for external trade

28. Volume I of this publication was published in 1987 (ST/ESA/STAT/SER.M/82) 13/ and contains a description of the methods used in the Statistical Office of the United Nations Secretariat in compiling the price indexes of primary commodities and non-ferrous base metals. Volume II will contain descriptions of methods used by the Statistical Office of the United Nations Secretariat in compiling the unit value (or price) and quantum indexes, where appropriate, of exports of manufactured goods, machinery and transport equipment, imports of fuels and exports and imports of total merchandise of market economies by regions. Considerable progress has been made in 1990 and a completed draft of volume II now exists and is under technical review.

3. Interregional Workshop on External Trade Statistics

29. An Interregional Workshop on External Trade Statistics was held at Accra, from 27 November to 8 December 1989. The Workshop was organized by the Department of Technical Co-operation for Development of the United Nations Secretariat, with substantive support from the Statistical Office. Additional resource persons were provided by the United Nations Conference on Trade and Development (UNCTAD) and the Overseas Development Administration of the United Kingdom of Great Britain and Northern Ireland. There were 26 participants. Discussions focused on the computerization of international trade statistics in countries using microcomputers

and software packages especially developed for that purpose by UNCTAD (the Automated System for Customs Data (ASYCUDA)). The Workshop also examined SITC, Rev.3, and its relationship to other international commodity classifications and considered methods of unit value and quantum index number construction, paying particular attention to practical problems. In addition, the Workshop considered CADET, a software package developed by the European Economic Community (EEC) for analysing customs data on external trade.

4. New projects

30. Research is at present being carried out on possible improvement in country coverage of the export price index for machinery and transport equipment for selected countries. Library research is under way on country practices in compiling international trade statistics, including price/unit value and quantum indexes, as a first step leading to a planned future publication on country practices in trade statistics.

5. International sea-borne trade statistics

31. In accordance with requests made by the Statistical Commission at previous sessions, the Department for International Economic and Social Affairs is pursuing extrabudgetary funds from a variety of sources to support this area of work. 14/ To date the efforts have not been successful. Work has continued, using regular budget resources as available, to collect limited statistical data of goods loaded and unloaded in sea-borne trade based on questionnaires sent to countries. By agreement, these data have been provided to UNCTAD as a basis for UNCTAD to compile world tables. The 1986 Yearbook of International Sea-borne Trade Statistics (ST/ESA/STAT/SER.D/86) 15/ was also completed on the same resource base.

6. Automated System for Customs Data (ASYCUDA) 16/

32. ASYCUDA was established in 1981 to facilitate customs procedures and improve trade by introducing computerization into customs management. Twenty-four countries are already operating or are implementing ASYCUDA, more than 26 are in the final stages of negotiation and many more have shown interest.

33. ASYCUDA was specifically designed to address the special needs and conditions of customs in developing countries. Its main objectives are (a) to control the flow of goods from arrival to customs clearance by handling customs declarations, trade licensing controls, cargo movement monitoring and accounting procedures, and (b) to produce statistical data automatically.

34. In addition to funds provided by the United Nations Development Programme (UNDP), funding for project development and implementation has also been provided by the Governments of Denmark, France, Germany, Italy, Norway, Sweden, Switzerland, the United Kingdom of Great Britain and Northern Ireland and the United States of America. Other funding has come from EEC, the World Bank and the Caribbean Development Bank.

35. The current version 2 of the software, which was designed for microcomputers within local area networks, has been redeveloped to include new functions and introduce standard codes, notably for future use in trade data interchange. This improved edition is scheduled for release in April 1990. A new version (3.0) is being written in "C" language, under the UNIX operating system, in order to ensure full compatibility with all computers, from micros to mainframes. The technical development of ASYCUDA is guided and supervised by a working group composed of representatives of UNCTAD, the ECE International Trade Centre, EEC, the World Bank, the Customs Co-operation Council, the International Maritime Organization and the customs administrations of France, the United Kingdom and the United States.

36. From the outset, the ASYCUDA software incorporated three data bases covering financial, economic and customs statistics. This facility enabled the user to monitor financial and physical flows such as foreign trade and duties and taxes and to present them in pre-customized formats.

37. A special extraction module has been added to version 2. It includes a highly sophisticated selection facility which permits the detailed extraction of data elements such as time series, and their conversion to ASCII files. This new tool should make it easier for countries to transmit their trade data to international institutions. Furthermore, the data extracted and processed by the system can be used by most statistical packages for further analysis and aggregation. Data collected by ASYCUDA can then be disseminated and used by national institutions other than customs services.

7. Points for discussion

38. Points for discussion are set out in paragraph 72 (c).

D. Population and housing censuses

1. Activities since the twenty-fifth session of the Statistical Commission

39. With the completion of the report on Supplementary Principles and Recommendations for Population and Housing Censuses, 17/ the work of the Statistical Office of the United Nations Secretariat focused on the preparation of census training materials and technical co-operation activities to assist countries in carrying out quality censuses. The focus was specially on improving statistics concerning the economically active population, special population groups and small areas. A series of workshops on economic topics was therefore carried out jointly with the International Labour Organisation (ILO) and the regional commissions to exchange information on the new ILO standards for the measurement of the economically active population and revised industrial and occupational classifications, as well as to consider ways of implementing them in future censuses and surveys.

40. The Statistical Office of the United Nations Secretariat also plans, as part of the above-mentioned series of workshops, to hold a Workshop on Economic Statistics in Population and Housing Censuses (Moscow, 21-30 November 1990), for which the Government of the Union of Soviet Socialist Republics and the State Committee of the USSR on Statistics will serve as host. Further, an Interregional Workshop on Planning, Organization and Administration of Large-scale Demographic and Social Data Collection Activities for Small Areas (Bangkok, 20-24 November 1989) was organized by the Statistical Office and the Department of Technical Co-operation for Development of the United Nations Secretariat, in collaboration with ESCAP, to consider new advances and innovative aspects relating to various phases of census-taking that would improve the quality, timeliness and utilization of data at all levels.

41. At the regional level, intensive preparations, including census meetings, seminars and training workshops were carried out to promote cost-effective censuses in the 1990s. ECE organized, in co-operation with the Government of the Federal Republic of Germany and the Federal Statistical Office, a Seminar on the Relevance and Importance of Population and Housing Census Data (Wiesbaden, 24-28 April 1989). The seminar noted that in virtually all countries of the ECE region, population and housing censuses constituted a corner-stone of the national statistical information system. It also noted that only a few countries have the technical and legal instruments to allow population registers and other administrative sources to be used to gather the same amount of information as censuses. Further, it stressed the role of technological changes in the dissemination of census results and pointed out that printed publications could be supplemented by microfiches, user tapes, diskettes and laser discs to facilitate the utilization of census results by users outside the statistical office. ECE plans in the coming years to study the costing aspects of population and housing censuses and to convene a series of meetings on the following subjects: (a) recent developments in census data dissemination; (b) developments in and plans for census products directed towards users' needs and (c) uses made of census data. It also intends to organize among ECE countries an exchange of census questionnaires and other relevant information on censuses and to publish a statistical volume containing basic tables from the 1990 round of population and housing censuses in the ECE region.

42. Intensive preparations were similarly undertaken by ESCAP at the regional and subregional levels. They included the following publications: Censuses of Population and Housing in Asia and the Pacific towards the 1990 Round 17/ and the revised Principles and Recommendations for Population and Housing Censuses in Asia and the Pacific. 17/ In addition, a number of meetings and workshops were organized at the regional and subregional levels. Notable among them are the Working Group on Software Packages for Censuses and Surveys (Bangkok, 15-21 November 1988), the Workshop on Computer-Assisted Coding (Christchurch, 17-21 April 1989) and the Workshop on Economic Classifications for Population Censuses and Surveys (Bangkok, 30 April-4 May 1990).

43. The Economic Commission for Latin America and the Caribbean (ECLAC) promoted horizontal co-operation and organized a series of seminars to support the 1990 round of censuses. These included, in addition to the two seminars on census

organization and cartography that took place in 1988, the following four seminars during 1989, on: (a) content and design of census forms (Rio de Janeiro, 13-19 March 1989), (b) use of sampling during the preparation and utilization of census information (Buenos Aires, 18-21 April 1989), (c) computer systems for user access to census information (Santiago, 12-15 September 1989) and (d) training of field personnel (Havana, 7-10 November 1989). Further, two seminars took place during 1990 on (a) computer systems for the processing of census data (Caracas, 20 May-1 June 1990) and (b) post census evaluation and use of master samples (Cartagena, 4-8 June 1990).

44. The Economic Commission for Africa (ECA) focused its work on building up institutional capabilities in census-taking and provided technical support to 22 countries in various aspects of censuses through 40 short-term advisory missions. The missions undertaken to countries were mainly in the area of data processing as most countries have critical problems to resolve. Also, a number of missions were completed in cartography and census organization to assist national census offices in preparing for their 1990 censuses. The other aspects covered by these missions included census project development and needs assessment. In addition, ECA organized a Training Workshop in Census Cartography (Nairobi, 8-19 May 1989) and a Training Workshop on Economic Activity Topics in Population Censuses (Addis Ababa, November 1989), in collaboration with ILO and the Statistical Office of the United Nations Secretariat. Two additional training workshops, on (a) census cartography and (b) use of software packages for census data analysis, are planned for 1990.

45. At the national level, most countries have begun their preparations for the 1990 round. Sixty-seven countries or areas have already taken a census during the period 1985-1989. Nineteen of them are in Africa, 15 in Asia, 13 in Europe and the Soviet Union, 16 in Oceania, 2 in North America and two in South America. However, the majority of population and housing censuses are anticipated to take place during the two years 1990-1991, and indications are that roughly 65 countries or areas will hold censuses in 1990 and another 42 in 1991. A listing of countries and the planned or actual dates of their censuses will be made available prior to the Commission.

2. Methodological developments and issues

46. The 1990 census round will witness the introduction of many developments and new technology, including microcomputers for data processing and dissemination. To assist countries in this regard, the Statistical Office of the United Nations Secretariat plans to publish a series of technical reports and manuals on this subject. It has recently submitted for publication a Manual on Population Census Data Processing Using Microcomputers, 17/ which deals with issues involved in selecting appropriate methods and techniques in the light of specific needs of countries regarding data processing.

47. Further, an Interregional Workshop on Population Data Bases and Related Topics (Voorburg, 6-10 November 1989) was convened by the Statistical Office of the United Nations Secretariat with the support of the Department of Technical Co-operation

for Development, the United Nations Population Fund (UNFPA) and the Central Bureau of Statistics of the Netherlands. The Workshop emphasized that publishing a series of reports presenting many tabulations is no longer sufficient. Users expect that the data will continue to be readily available for analysis and investigation of new phenomena as they arise. The census offices may find it difficult to fulfil such expectations by merely keeping a large set of data on magnetic tapes (which, in some cases may be poorly documented) or on microfilms that are difficult to disseminate efficiently and not easy to utilize by users. Therefore, the possibility of establishing census data bases aimed at efficient dissemination of unpublished as well as published data assumes importance for consideration in the context of 1990 censuses and emerging new technology.

48. Statistical data bases, because of their varied uses and the different characteristics of data involved, require rather different technical considerations from other commercial data bases. Therefore, the software products that serve commercial data bases may not be adequate for the statistical data bases without careful studies on the requirements of the statistical data bases and the capabilities of the software. However, the potential usefulness of the commercially available data base software for disseminating tabulated data (published or unpublished) cannot be ignored because of their wide availability, low cost, relative ease of use and the advanced capabilities of some of them.

49. The interregional workshop mentioned above (para. 47) attempted to identify the technical requirements of such software and observed demonstrations of commercially available data base software. The Statistical Office of the United Nations Secretariat plans to conduct another workshop on population census data bases in late 1990, focusing again on the methodology of developing population census data bases in the developing countries for improving data dissemination and utilization.

50. Another type of census data base, namely, a data base of micro records or unit records consisting of information on individual returns, was also discussed at the workshop and the software known as REDATAM was introduced. REDATAM was developed by the Latin American Demographic Centre (CELADE) of ECLAC, with support from UNFPA and the International Development Research Centre of Canada, and is considered quite effective for exploring and establishing a census data base. It was reported that entire census data could be stored in a small number of laser optical disks (CD-ROM) not in the original format but in a processed format known as transposed format. Such disks (individual records) could be easily forwarded to users who themselves would retrieve data for geographic units of interest and make simple cross-tabulation. The approach seemed to give an attractive alternative to the census data bases of tabulated data. There was a reservation, however, that the approach would require advanced expertise, which is lacking in many countries. This issue will also be examined further in future workshops.

3. Census training and other activities

51. Since 1985, a number of census training and other technical co-operation activities have been undertaken to assist developing countries in carrying out improved censuses in the 1990 round. They generally included the following major areas: (a) provision of technical advisory services through country, regional or interregional advisers; (b) provision of training through fellowships and study tours and (c) provision of funds for the purchase of equipment. These forms of technical co-operation were supported by UNFPA and, within the United Nations, were executed by the Department of Technical Co-operation for Development, with substantive support from the Statistical Office of the United Nations Secretariat, or by the regional commissions. The advisory services covered all aspects of censuses, including planning, cartography, pre-tests, pilot tests, tabulation plans, data processing and preparation of census reports. These activities are expected to continue subject to the availability of funds from UNFPA and other international agencies (see, also, E/CN.3/1991/25).

52. With respect to census training, the large programme for the sub-Saharan African region that began in 1987 with funds provided by the Canadian International Development Agency and UNFPA gained momentum. Thus, in 1989, in addition to the two subregional training workshops on cartography and economic topics mentioned in paragraph 44 above, eight national training courses were conducted in various sub-Saharan countries. Furthermore, international fellowships were awarded for advanced training in sampling at Statistics Canada in English and French in alternate years. As part of this continuing programme, 11 national training courses are planned for 1990 dealing with census organization, cartography, data processing and analysis.

53. The experiences of countries that have already completed a 1990 census has pointed to several critical areas requiring further technical support. These include the need for strengthening national capability for carrying out post-enumeration surveys and other evaluation studies, improved dissemination and timely response to the demands of users for specialized and small area statistics. Also, many aspects of housing censuses require technical support, as does the integration of census data with other statistical sources and surveys. New developments and methodologies in the above-mentioned areas call for increased international co-operation and sharing of experience among countries in the timely resolving of many intricate problems and issues in fostering cost-effective censuses in the future.

4. Points for discussion

54. Points for discussion are set out in paragraph 72 (d).

E. Housing and human settlements statistics

1. Methodological work

55. Since the twenty-first session of the Statistical Commission, when the question of human settlements statistics was last discussed, the Statistical Office of the United Nations Secretariat has undertaken the following methodological work:

(a) Collaborated with the United Nations Centre for Human Settlements (Habitat) (UNCHS) to convene an expert group meeting on human settlements statistics at Nairobi from 12 to 16 October 1987. The meeting reviewed extensively data needs in the field of human settlements statistics, discussed general issues and made specific recommendations concerning the further development of the Compendium of Human Settlements Statistics 1983 (ST/ESA/STAT.SER.N/4). 18/ It endorsed the plans of UNCHS and the Statistical Office of the United Nations Secretariat for the future international compilation, dissemination and analysis of human settlements statistics, recommended measures to improve national and international co-ordination between users and producers of statistics and stressed technical co-operation in support of national shelter strategies; 19/

(b) Published a technical report in 1986 entitled Concepts and Methods for Integrating Social and Economic Statistics on Health, Education and Housing (ST/ESA.STAT/SER.F/40). 20/ The report is one in a series of reports issued by the Statistical Office of the United Nations Secretariat on the integration and improvement of social, demographic and related statistics. Chapter VII of the report (Integration of Statistics on Housing and Human Settlements) is devoted to exploring ways by which data on housing and human settlements can be linked with data on social and economic circumstances of households and to analysing practical problems of possible integration.

56. As one of the consequences of the review of outputs and resources consequent to the financial crisis, no methodological work in this field is planned for the 1990-1991 biennium. However, realizing the importance of developing statistical concepts and methods as a fundamental component of any strategy to improve housing and human settlements statistics, the Statistical Office of the United Nations Secretariat envisages further work in the future, depending on the availability of resources, on harmonizing and standardizing definitions and concepts in housing and human settlements statistics and on the study of national practices on sources, methods of collection, evaluation and use of current housing statistics.

2. Data compilation and dissemination

57. At its twenty-first session, the Statistical Commission endorsed the publication at five-year intervals of the Compendium of Human Settlements Statistics 21/ in place of the former Compendium of Housing Statistics. 22/

58. Using as a framework the recommendations of the United Nations Conference on Human Settlements held in 1976, a questionnaire for the collection of national

human settlements statistics was developed by the Statistical Office of the United Nations Secretariat and circulated to UNCHS, the regional commissions and the specialized agencies for comments and suggestions. The questionnaire was revised, taking into account all comments and suggestions. The data collection, compilation and printing took place during 1982-1984, and the first issue of the Compendium of Human Settlements Statistics was published in 1985. 18/

59. Also as a result of the review of outputs and resources consequent to the financial crisis, the second issue of the Compendium of Human Settlements Statistics was deleted from the work programme of 1990-1991. The Statistical Commission, at its twenty-fifth session, noted the deletion with concern and considered it untimely following the adoption by the General Assembly of the Global Strategy for Shelter to the Year 2000 (Assembly resolution 43/181). 23/ At its twelfth session, held from 24 April to 3 May 1989, the Commission on Human Settlements, in its resolution 12/6, expressed deep concern about the deletion of the Compendium and invited the Statistical Commission at its twenty-sixth session to examine ways and means of resuming the work on the Compendium within the 1990-1991 work programme. Subsequently, and in response to the concern expressed by the Commission on Human Settlements, the Statistical Commission's Working Group on International Statistical Programmes and Co-ordination, at its thirteenth session, added sub-item 9 (f), Human settlements statistics, to the agenda of the present session of the Statistical Commission (see E/CN.3/1991/2, para. 9 (b)).

60. Also in response to these concerns, the Statistical Office of the United Nations Secretariat is endeavouring to resume work on the collection of human settlements statistics in co-operation with UNCHS, using existing resources. Under the present arrangement, data collected by the Statistical Office of the United Nations Secretariat will be provided in unpublished form to UNCHS and other users. If sufficient resources permit, the Statistical Office of the United Nations Secretariat will consider the possibility of resumption of publication of human settlements statistics in the 1992-1993 biennium.

61. A computerized data base, the Human Settlements Statistics Data Base (HSDB-stat), is expected to be completed at the end of 1990 by UNCHS for distribution to users. It is designed to store, process and retrieve global statistical data on human settlements gathered from a wide range of sources. It has 45 tables of data covering information on population, geography, economy, infrastructure, services and housing, and a directory. In addition, UNCHS is preparing a statistical pocketbook entitled Basic Human Settlements Statistics, 17/ which is scheduled to be published in the third quarter of 1990. The pocketbook contains 50 statistical series on population and households, land, housing, infrastructure and services for 1960, 1970 and 1980.

3. Points for discussion

62. Points for discussion are set out in paragraph 72 (e).

F. Statistical programmes for social indicators

1. General

63. The present section covers work on special population groups. For a discussion of other work on social indicators, see the reports of the Secretary-General on progress made in the development of a co-ordinated data base for the United Nations system for selected social statistics and indicators of common interest and the development of related national data bases (E/CN.3/1991/20) and on the statistical work of international organizations (E/CN.3/1991/28).

64. The work programme on special populations, including the elderly, children, youth, the disabled, families, homeless persons, and refugees, has focused its methodological work on issues targeted by Governments and intergovernmental agencies for policy formulation and planning purposes. It also compiles and disseminates national statistics for selected population groups and continues to work for improving statistical compilation and dissemination in this area.

65. The methodological work focuses on the following areas: (a) harmonization of concepts and definitions of special populations; (b) adaptation of the World Health Organization (WHO), International Classification of Impairments, Disabilities and Handicaps, for the identification and description of special populations of disabled persons from data collected through the population censuses, sample surveys and registration systems; (c) development of data collection methods; (d) formulation of tabulation plans for the study of special populations for use in censuses, surveys and registration systems; and (e) design and testing of dissemination programmes for statistics on special populations to meet the information and research needs of Governments, non-governmental organizations and other users.

2. Data compilation

66. Several outputs on data compilation are being prepared in 1990 and subsequent years on, inter alia, disabled persons, population aging and elderly persons, and children. The Compendium of Disability Statistics 17/ is scheduled to be published in the third quarter of 1990. This exploratory work is being produced for the first time by the Statistical Office of the United Nations Secretariat, reviewing national disability statistics from population censuses, national surveys and registration systems of 55 countries or areas. It is based on statistics stored in the International Disability Statistics Data Base (DISTAT, version 1), a microcomputer data base developed by the Statistical Office of the United Nations Secretariat in 1988-1989 and disseminated to over 90 organizations world wide. A full discussion of DISTAT is given in United Nations Disability Statistics Data Base, 1975-1986: Technical Manual, which was published in 1988 (ST/ESA/STAT/SER.Y/3). 24/

3. Methodological work

67. Preparation has begun on the National Guide to the Development of Disability Statistics, which will be issued in 1991. 17/ The purpose of this publication is to discuss the concepts, definitions and methodologies available for the study of disability through the use of censuses, surveys and registration systems. Further development of DISTAT is being planned and version 2 of this statistics data base is expected to be available in 1993.

68. Work on population aging and elderly persons will result in a special issue of the 1990 Demographic Yearbook to be published in 1992. The topic on aging will include some new data collected such as questions about living arrangements of elderly persons and also a full review of national census statistics of disability. A separate report on the situation of elderly women is planned to be issued in 1992.

69. Work on statistics on the situation of children, with an emphasis on pre-school, has begun in collaboration with the United Nations Children's Fund (UNICEF), the United Nations Educational, Scientific and Cultural Organization (UNESCO) and WHO. On the basis of extrabudgetary resources, a statistical chart on child development was produced jointly by UNICEF, UNESCO, WHO and the United Nations in the third quarter of 1990.

4. Training programmes

70. Two interregional training programmes on disability statistics, both supported by the Department of Technical Co-operation for Development and carried out in collaboration with the Governments of Hungary and Malta, were implemented in 1988 and 1989 respectively. 25/ These two training programmes have broadened the international network of statistical producers and users who are responsible for the implementation of national census, survey and registration programmes. The significant interaction and active participation of the international community in the discussion of disability statistics development is rapidly leading to a need for international statistical standards and guidelines for census, survey and registry work in this area.

5. Points for discussion

71. Points for discussion are set out in paragraph 72 (f).

III. POINTS FOR DISCUSSION

72. The Statistical Commission may wish:

(a) To comment on the overall scope and coverage of the methodological work undertaken by the Statistical Office of the United Nations Secretariat;

(b) To provide guidance and make recommendations on the following points:

(i) The implementation and use of ISIC, Rev.3;

(ii) The need for further development of the provisional CPC;

(iii) Links between the work on economic classifications and other methodological work on national accounts and service statistics;

(iv) The need for special purpose classifications, e.g., for tourism, the information sector or environmental statistics;

(v) The planned activities outlined in paragraph 14 above;

(c) To comment on progress made and future programmes in the areas of energy and international trade and transport statistics, including the ASYCUDA programme;

(d) To review the progress made in the 1990 World Population and Housing Census Programme and consider further preparations needed in order to fully utilize and integrate the census results with other data sources, particularly post-censal demographic and social surveys;

(e) To suggest ways and means to strengthen the work in the area of housing and human settlements statistics;

(f) To comment on progress made and future programmes in the area of special population groups.

Notes

1/ Official Records of the Economic and Social Council, 1987, Supplement No. 6 (E/1987/19), para. 216.

2/ Ibid., 1989, Supplement No. 3 (E/1989/21), para. 163.

3/ Ibid., paras. 95 (a) and (b).

4/ Ibid., para. 95 (d).

5/ Ibid., para. 84.

6/ Ibid., paras. 81, 83-86 and 88.

Notes (continued)

7/ See "Report of the Expert Group Meeting on SNA Co-ordination", (ESA/STAT/AC.34/25), paras. 1-11 and para. 1 of the note to the report.

8/ Official Records of the Economic and Social Council, 1989, Supplement No. 3 (E/1989/21), para. 88.

9/ Conference of European Statisticians, "Report of the twenty-seventh plenary session", 12-16 June 1989 (ECE/CES/34).

10/ United Nations publication, Sales No. E.80.XVII.7.

11/ United Nations publication, Sales No. 82.XVII.13.

12/ See "Report of the Expert Group on Classifications and Measurement in the Field of Energy Statistics" (ESA/STAT/AC.8/11).

13/ United Nations publication, Sales No. E.87.XVII.4.

14/ See Official Records of the Economic and Social Council, 1987, Supplement No. 6 (E/1987/19), para. 113.

15/ United Nations publication, Sales No. E.88.XVII.13.

16/ This section of the report was provided by the United Nations Conference on Trade and Development.

17/ To be issued as a United Nations publication.

18/ United Nations publication, Sales No. E/F.84.XVII.5.

19/ See "Report of the Expert Group on Human Settlements Statistics" (ESA/STAT/AC.31/1).

20/ United Nations publication, Sales No. E.86.XVII.23.

21/ Official Records of the Economic and Social Council, 1981, Supplement No. 2 (E/1981/12), para. 116.

22/ United Nations publication, Sales No. E/F.80.XVII.4.

23/ Official Records of the Economic and Social Council, 1989, Supplement No. 3 (E/1989/21), para. 212.

24/ United Nations publication, Sales No. E.88.XVII.12.

Notes (continued)

25/ International Training Workshop on the Development of National Microcomputer Data Bases on Disability for Population Studies and Development Planning (Budapest, December 1988), conducted by the Statistical Office of the United Nations Secretariat in collaboration with the Department of Technical Co-operation for Development and the Hungarian Central Statistical Office; and International Training Workshop in Disability Statistics on Census and Survey Methods for the Study of Impairment, Disabilities and Handicaps (Malta, 27 November-6 December 1989), conducted by the Statistical Office of the United Nations Secretariat in collaboration with the Department of Technical Co-operation for Development and co-hosted by the Government of Malta and the International Institute for Aging (INIA).